

AMERICAN VETERINARY REVIEW.

MAY, 1904.

EDITORIAL.

EUROPEAN CHRONICLES.

PARIS, March 20, 1904.

RADIUM! RADIUM!! Everything lately has been on that subject. Daily papers are full of it, scientific societies are occupied with it, the Academy of Medicine has its attention called to it; even veterinary papers treat of it; it is in the *Receuil de Medecine Veterinaire* that Kauffmann writes a long article on its properties; it is in the *Clinica Veterinaria* that Dr. Bernardina not only speaks of radium, but widens the field of his remarks in a brilliant article, headed "The X-Rays, the B-Rays, and the N-Rays." The X-Rays we owe to Roentgen, the B-Rays to Buguerel, the N's to Blondlot—and all because a sensational event, the giving of Nobel's prize to Mr. Buguerel, and Mr. and Mrs. Curie has reminded the public of the handsome discoveries made by those learned chemists, discoveries which have been made now several years. But to-day everybody speaks of radium, everyone wishes he could possess a small piece of this marvellous body whose properties are so wonderful—a desire which cannot be realized right away, as the quantity of pure radium salt that is now existing in the whole world is said to be only three grammes, and one gramme is valued at \$40,000—a nice little figure!

Radium is obtained only in combination with other metals, such as barium, uranium, or thorium, or in the shape of chlorides or bromides. Ores of these compounds, *pechblende*, are quite abundant in Bohemia, Bavaria, and also in America.

The readers of the REVIEW have no doubt read in scientific papers all that has been written of this wonderful metal and its peculiar properties, and it is not my object to reconsider all that is known of the power that radium rays have to render spontaneously luminous phosphorescent and fluorescent bodies, or of their action on photographic plate, on glass, on oxygen, on white phosphorus, etc., etc.; nor even of its power of giving out heat; in fact, of all those properties which make radium appear as a perpetual and inexhaustible producer of energy. It continually gives off chemical, heating, electric and other rays, it possesses an inductive radio-activity, and all without borrowing them from other sources of energy. In fact, says Kauffmann, it realizes perpetual motion.

All these are what may be called chemical actions; they are all well known. Unfortunately the same cannot be said of their physiological effects, as, beyond the fact that they produce hyperæmia, destroy living tissues, paralyze nervous centres, or even end in death, nothing is known, and as a consequence of this want of knowledge, although European and American scientists have already made known some of the results they have obtained in the treatment of some forms of cancerous affections, it will be necessary to complete this knowledge before the great expectations which are entertained in the application of radium rays and their like in medicine can be fully realized.

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IMITATORS OF DR. GARNAUT.—Since the time when the scientific press was taken up with the sensational experiments of Dr. Garnaut, which were detailed in the REVIEW, it seems as if the subject of experimental inoculation of tuberculosis to man had been dropped altogether. Yet now and then an article is found on the subject which must not be entirely ignored, as, after all, its contents may serve in a later period to throw light on the subject. If I am to believe the report that I read in the *Journal de Medecine pratique*, of Paris, it appears that in Germany Dr. Garnaut has found imitators. A sensational ex-

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periment is recorded as having been made by a physician, Dr. Moeller, a student of Koch, who is now director of a sanatorium for tuberculous people. It appears that on March 1, 1902, this doctor began to inject in his veins a culture of tuberculous lesions taken from an orvet (a blind worm). Three of these inoculations were made during the year. Finally, on December 15, a test inoculation of his condition was made by the intravenous injection of an emulsion of a virulent culture of bacilli from human tuberculosis. Guinea-pigs which were inoculated at the same time with subcutaneous injections of similar material died. With the doctor there were only evidences of some fever and loss of flesh during the two months that followed the inoculation. But after that time his health returned and has remained excellent. The weight of the doctor is now normal, and for him, to his own satisfaction, he is out of danger—he is *vaccinated*.

The conclusion drawn by him from this experiment is, that it is possible to vaccinate against tuberculosis by using as vaccine cultures of tuberculosis from cold-blooded animals. This experiment needs a great deal of confirmation, and has a long field ahead before it is considered of practical value. It has already given rise to rather severe and sarcastic criticism, among which is this: to prove that Dr. Moeller is surely vaccinated, inoculate another man who has had no orvet protection and then judge; until this is done the experiment proves nothing.

* * *

A SUCCESSOR TO NOCARD.—Lately there has been in the French veterinary journals a short and dry notice, whose translation reads as follows: "*Alfort School's Chair of Contagious Diseases*.—The competitive examination for the appointment at Alfort of a professor of pathology of contagious diseases, sanitary medicine, commercial and medical legislation was opened on Monday, 18th, and closed on January 24th."

The object of the examination was to find a worthy successor to the regretted Nocard. Mr. H. Vallée passed through the

various requirements with brilliancy, and his name was proposed to the Secretary of Agriculture for his nomination. It is done; it was well deserved.

For many of us this will read probably as an ordinary item of professional news. And, yet, they cannot but help ask themselves, why did such competitive examination last so long—from the 18th to the 24th of January, especially when only one candidate was present, when only one man felt sufficient ambition, and yet also sufficient confidence to hope to be able to compete so as to have the chance of fulfilling one of the hardest chairs of a veterinary school? A glance at what was required from Mr. Vallée will explain it all.

First, there was the reduction of a memoir upon the *properties of humors in vaccinated animals*. Five hours were allowed for this work, which was to be prepared without books or notes.

Second, to deliver a lecture on the *diagnosis and sanitary measures of tuberculosis*. Three hours were granted for the preparation of this lecture, without books or notes.

Third, after twenty-four hours' preparation, another lecture on the following two subjects: *Conditions which are necessary to the validity of contracts; feverish meats*.

Finally, a series of practical clinical trials: (1) *On contagious diseases*; (2) *on rehibitory vices*; (3) *on post-mortems of animals dead with contagious diseases*; (4) *on inspection of suspicious meats of butchery*; (5) *on practical bacteriology*.

Is it strange that European schools, where similar difficulties have to be overcome before a professorship is obtained, are considered as entitled to the high rank they occupy as schools where a good education can be obtained? What has just been read for this chair of contagious diseases is also required for all the other departments.

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THE CURABILITY OF GLANDERS WITH MALLEIN.—The subject of the curability of glanders, demonstrated by Nocard in such an irrefutable manner in 1897, was brought back some time ago before the Société Centrale by Mr. Mouilleron, who

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reported four typical cases, which had been in the service of the Omnibus Company.

Submitted to severe hygiene, under the observation of a sanitary veterinarian, these horses received no therapeutic treatment; they were kept at regular but light work, and received a rational alimentation. During that time they were subjected to malleination, and were destroyed only after mallein had ceased to react two or three times in succession. Of these four cases, three were kept three years, and one four. One horse was malleined five times, one four, a third twelve, and the last eight. When they were destroyed the virulence of the lesions that were found was tested by microscopic examination (method of Löffler), already used by Nocard in his experiments in 1897, by cultures in special media and by inoculation in the peritoneum of guinea-pigs with solution of the suspected products, made in sterilized water. All these experiments gave negative results and proved that, beyond doubt, the four horses had recovered.

This record suggested to another member of the Society, Mr. Brun, to relate the case of another animal which he had treated, first because of an attack of lymphangitis of one hind leg and which he was on the eve of turning over to the sanitary authorities to be destroyed, because of a manifest reaction given by the horse with mallein. However, before the animal was destroyed Nocard was called; he advised to wait, recommended watching, and prescribed malleination at intervals. After several months the horse was returned to his owner as cured and has worked ever since.

All these cases speak well in favor of the chances that some horses have to get cured from glanders, but they do not prove the infallibility of the result; they do not suggest relaxation in the application of the sanitary measures; and, yet, when one thinks of the many valuable animals he perhaps has sent to the knacker's yard for trifling and . . . doubtful lesions of the septum, how thankful he must be to those who have discovered mallein with its diagnostic and its curative (?) properties.

A NEW SUTURE NEEDLE.—Before closing, I must call the attention of our friends who do much surgery to a new needle invented by a four-year student at Alfort, which, from the inventor's name, is called the Chavance needle. I have seen it used by the professors at Alfort and others, and when presented by Prof. Cadiot to the Société Centrale, it was referred to the Commission of Prizes. I think it is worth knowing.

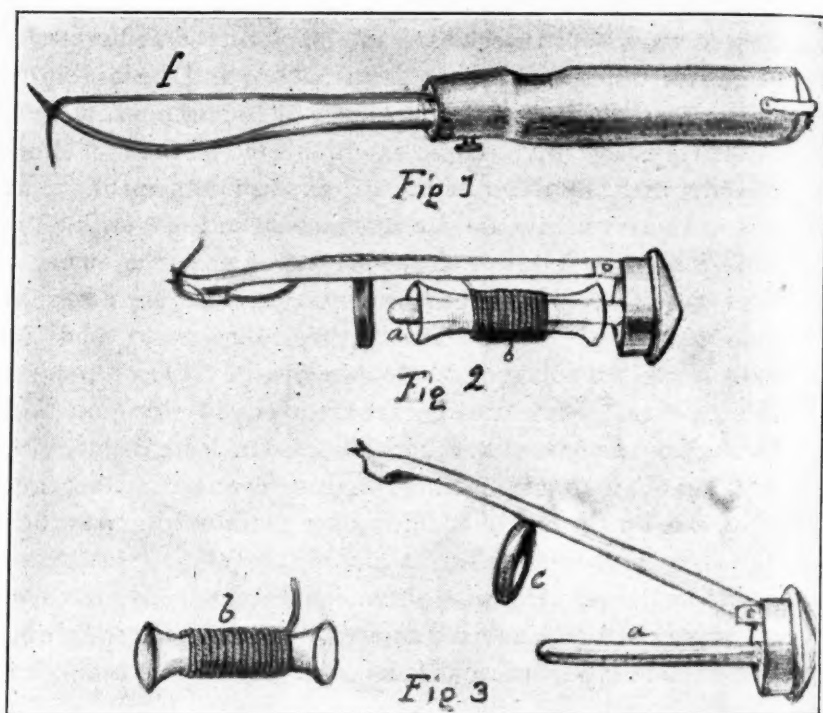


FIG. 1.—Needle ready to make suture with.
FIG. 2.—Spool-holder with spool *b* turning on axle *a*.
FIG. 3.—Spool-holder open to place the spool *b* on axle *a*.

The needle can be changed and is movable on its handle which is hollow and contains the thread rolled on a spool. The thread is then kept clean and can be inserted through the edges of the wound without being touched by the fingers. The thread rolled on the spool (*b*), which is kept within the handle, and pulled through the eye of the needle, as in Fig. 1. When the instrument is prepared, it can be sterilized and an aseptic suture

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be applied with as many stitches as is necessary. A glance at the accompanying plate will give a full idea how the instrument is loaded and how it works. It is certainly superior to many needles in use, and to that of Reverdin, which is rather delicate; bends or breaks easily. I understand that the author has taken out a patent for his invention. I regret it.

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PERSONAL NOTES.—At a meeting of the Société Centrale de Médecine Vétérinaire of Paris, held Feb. 25, I had the honor to present the Society with the copy of "Diseases of the Horse," published by the Bureau of Animal Industry, which was sent to me to that effect by Dr. D. E. Salmon, one of the foreign corresponding members of the Society. The book was received with thanks.

* * *

I have received the engrossed resolutions upon the death of Prof. Nocard adopted by the American Veterinary Medical Association, and had them delivered to the family of our regretted *confrère*.

* * *

Dr. D. Le May: Your request has been complied with, and the work of Mr. Joly sent to you. I hope it will reach you safely.

* * *

I send thanks to Dr. Van Es for his pamphlet on "Stock Poisoning Plants of North Dakota."

* * *

I have also received the check sent by the Missouri Valley Association and have turned it over to the Nocard Committee. The postal order of the Michigan Association I was obliged to return to New York, but it will be forwarded to the Committee when it gets back.

A. L.

CORRESPONDENTS are reminded that delay in publishing their communications is occasioned only by the great amount of material in hand; the delay does not indicate lack of appreciation of their favors.

NASO-ÆSOPHAGEAL INTUBATION.

This operation in the horse has been brought into considerable prominence recently by several members of the profession, and apparently, from their testimony, it deserves all the publicity it can secure, for it is shown to be a practical and safe procedure in one of the most frequent and fatal disorders of our chief patient, viz., gastric tympany in the horse. In the present number of this journal not less than three correspondents write upon the subject. Dr. J. M. Phillips, of St. Louis, contributes a most excellent paper, fully describing the easiest method of introducing the stomach tube, describes the best form and quality of instrument and predicts that the siphoning of the horse's stomach will take a position in veterinary surgery equal to that of enterocentesis. The Doctor gives the history of the origin of the method as he has known it, which dates back ten years, the idea having come to him from his colleague, Dr. H. B. Piatt, also of St. Louis. The latter gentleman also contributes a letter in the present number upon the injection of normal salt solution in purpura hæmorrhagica, incidentally alluding to the fact that he was the originator of the operation under consideration.

But our friend, Dr. Wm. H. Gribble, of Ohio, goes these gentlemen one better by antedating their discovery of the tube by several years, and refers to the records to prove it, for he contributed an article to the REVIEW in 1890 describing it.

Now that the question has been agitated, other veterinarians may come to the front with documents that will supersede all of these, for Dr. Phillips gained his first inspiration in this line when a little boy, by seeing the picture of a veterinarian administering nourishment to a horse with tetanus by means of a tube passing through the nasal chamber and down the œsophagus. If the author of that old-time print be still alive he may stand up and demand credit for his genius, or his heirs or assigns may seek to file their claims to the discovery.

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a tube into the horse's stomach for the purpose of permitting accumulated gas to escape or for the removal of fermenting ingesta that may be threatening the life of a patient. It is very possible that such a reasonable and practical procedure has occurred to veterinarians in different parts of the country simultaneously or without the one suspecting that the other was stricken in the same manner. One gentleman, however, has gone to a great deal of trouble in perfecting a practical instrument (a "stomach tube"), he has devoted considerable time to experimenting in order to get the best method of passing the tube, and has prepared for the benefit of his colleagues a clear and concise paper telling all about it, which he this month gives to the profession through the REVIEW. We trust that those who employ this means of treating colics in the horse will give their experience to the REVIEW for the benefit of the practitioners of the country.

THE ANNUAL FIASCO AT ALBANY.

Bills were introduced in the New York Legislature during the latter days of the session just closed to amend the veterinary law, whereby graduates of a two-year college could be registered without examination by the Board of Veterinary Medical Examiners. In view of the high entrance examination required of students in the colleges of this State, the length of the attendance at these schools, and the stringent practice examination exacted of their graduates, it is surprising that men could be found with sufficient audacity to introduce such measures in the Legislature. It is such a radical proposition that we really believe that those for whose benefit it is intended would scarcely be willing to acknowledge its paternity. It was so outrageous that there was little trouble in smothering its flickering light. As usual, Secretary Wm. Henry Kelly, of the State Society, mailed a copy of the Senate and House bills, with the names of the chairmen of the committees to which they were referred, to every member of the Society, and there was such a hearty response that they will never emerge from

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the committee-rooms. Senator Stewart, in replying to our letter of protest, said: "In reply to your favor of recent date would say I agree with you in opposition to the bills referred to regarding the practice of veterinary surgery. The bills are *dead* so far as this session is concerned." Assemblyman Nixon gave similar expression in behalf of his committee.

The value of a live and aggressive State Association is emphasized in such an instance as this. Why every eligible veterinarian in the commonwealth does not become a member, and assist in protecting his own interests, through practical and moral support, is hard to understand.

It may, after awhile, dawn upon those who yearly attack the New York practice act, and who are as regularly defeated in their attempts, that they are wasting their time and energy. Our laws are as strong as Gibraltar as long as the profession has sufficient energy to assert its rights through a righteous and vigorous appeal to the manhood and justice of our law-makers.

WE acknowledge receipt of No. 1, Vol. I, of the *Quarterly Bulletin of the California State Veterinary Medical Association*, a creditable little magazine of twenty-four pages, containing original papers, articles concerning the welfare of the profession of the Pacific Coast, and items of news and interest to veterinarians. While it is not very pretentious in its aspirations, it is destined to do much good to the profession if well supported by the interest and encouragement of those whom it seeks to serve, and who are asked to contribute to its pages. It will prove a means of interchanging not only scientific ideas but ways and means of guarding the welfare of the profession in its struggles to elevate its ranks in a section where the non-qualified practitioners almost equal those who have a legal right to practice. The *Bulletin* publishes a complete list of all those who are registered in the State, numbering about 175, as well as the names of those who have not the right to register, about 110, and who are designated "Illegal Practitioners." The Prosecuting Committee of the State Association has notified every man in the

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latter list to desist from practicing, and have proceeded against a number of them, winning their case in each instance. We welcome the *Bulletin* to our table, and trust it may prove of great benefit to the profession.

A LARGE section of the June REVIEW will be taken up with a splendid original paper by Dr. W. L. Williams, professor of surgery and obstetrics at the New York State Veterinary College, entitled "Teratology of the Hyo-Mandibular Gill-slit in the Horse." The article will be elegantly illustrated with original drawings, and is the result of much research upon the part of one who has contributed a great mass of valuable original material to veterinary literature, and one who thinks and reasons on his own account, and is not afraid to give expression to his convictions. If we were blessed with more members of our profession as tireless in the pursuit of conclusions upon points of doubtful knowledge, we would soon clear up many phenomena that are now obscure and little understood.

THE skeleton of a mastodon, in a state of excellent preservation, even the hair and skin remaining, has been unearthed in the Yukon District. It is valued at \$50,000.

ON March 17 Governor Mickey of Nebraska issued a sweeping proclamation calling for the treatment of cattle afflicted with mange, itch and scab. The Governor ordered that during April, May and June all cattle in which the disease exists must be dipped. All the sheriffs in the State are charged to enforce the new regulations and report to the State veterinarian. The method of treatment ordered is that adopted by the United States Bureau of Animal Industry.

WOMEN BLACKSMITHS.—A blacksmith's shop managed entirely by three women is one of the interesting sights to be seen in Kansas. The mother took entire charge of the business about fourteen years ago upon the death of her husband and had her daughters brought up not only to shoe a horse, but to understand every branch of the trade as well. The mother died, and now the three daughters, one of whom is married, have five men in their employ and carry on a very prosperous business. They personally superintend the shoeing of every horse.

ORIGINAL ARTICLES.

TREATMENT OF PARTURIENT PARESIS.

BY W. H. RIDGE, V. M. D., TREVOSE, PA.

A Paper presented at the Annual Meeting of the Pennsylvania State V. M. Association,
at Philadelphia, March 9, 1904.

The form of treatment has been so varied that one could scarcely conceive what would be the orthodox treatment. Let the treatment be what it may, one could scarcely be accused of malpractice. Practitioners are opposed to large drenches, especially of irritating medicines. Also purgatives, if given, should be administered early. Many of the prescriptions offered would be amusing, especially to future veterinarians, if recorded. We can scarcely say we made any advance until the Schmidt-Colding treatment of injecting a solution of potassium iodide into the udder was offered to us in 1898. This Schmidt treatment was the first real advance toward a scientific treatment.

Many of the members of this Association were favored by our energetic State Veterinarian, Dr. Pearson, who sent out directions with the outfit for treating a few cases by this method. The results were beyond expectation. Many who dreaded seeing a case of this complaint soon found by the Schmidt treatment that they had 80 per cent. recoveries, and that the disease had lost its terrors. This stimulated investigators to study this line of thought and to modify the treatment. This has brought us to-day to a line of treatment which we might almost claim as specific. It will be useless to occupy your time to take you back a number of years to tell you the modes of treatment that have been advised; but, looking over the last two years of our journals, we find several writers giving their views on the treatment. We can see that udder injections were not discarded by any. Many did not place reliance in potassium iodide as a curative agent. All close observers were of the opinion that a large amount of air thrown in with the solution aided in the recovery.

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Dr. W. E. A. Wyman, Portland, Mich., recommended saline solution with carbolic acid added, this solution to be injected into the udder the same as the potassium iodide solution. Dr. Wyman claims as good results as he previously had with the Schmidt treatment. He says by distending the udder with saline infusion its activity is possibly arrested and thus a chance given for the equalization of the disturbed circulation, thus a removal of the anæmic state of the brain, and a return to health.

Dr. J. C. Callander, of Parkersburg, W. Va., reported similar conclusions, using saline solutions for injections.

Dr. D. R. Kohler, Boyertown, Pa., advocates Schmidt's treatment without modification, but recommends giving strychnia, aloes, nitrous ether and ammonia, as a drench.

Drs. S. Brenton, Detroit, Michigan; Dunphy, Ex-State Veterinarian, Quincy, Mich.; Waldron, member State Examining Board, Tecumseh, Mich.; and Judson Black, Richmond, Mich., advocate the substitution of trikresol for the potassium iodide, and claim equal if not better results.

Dr. A. W. Baker, Brasher Falls, N. Y., advises the addition of creolin to the potassium iodide solution for udder injections.

From the foregoing reports we can readily see that there was something yet that was needed to make the Schmidt treatment ideal. Many used simply boiled water and claimed it was as good as if the potassium iodide was added.

Then came the report from Lucerne, Switzerland, of M. Knusel, who treated 22 cases of milk fever with oxygen, inflating the udder, and all recovered.

Dr. E. H. Lehnert, Storrs, Conn., then reported a case in detail, and evidently a very bad case. After inflating the udder with oxygen, she made a quick and good recovery.

Drs. White and Plaskett, Nashville, Tenn., say they have been using oxygen in the treatment of all milk fever cases for some months in a great number of cases and with not a single fatal case.

Drs. Tennant and Barnes, of London, Ont., Canada, have reported six cases without a fatal termination.

We have the reports of many recovered cases by this method of treatment, with only losses that occur from mechanical pneumonia, or such unavoidable occurrences.

This led the writer to try this mode of treatment, and it certainly surpasses all previous methods. During the last two years we had thirty-five cases, four of which were treated with oxygen, thirty-one with Schmidt's potassium iodide solution injected into the udder; 18 recovered and 13 died, or were destroyed. The four that had the oxygen treatment recovered promptly and fully.

Case I.—Registered Guernsey; fourth calf; calf one day old; found down in the morning; owner had given sodii sulphate the day before as she was very fat. I administered potassium iodide solution in the udder. At night found her comatose and labial breathing, lying on the side, somewhat tympanitic. I inflated the udder with oxygen. Next morning she was up eating and gave us no further trouble.

Case II.—Jersey; calved yesterday; this morning was not feeding well; was weak behind. Gave sodii sulphate in the afternoon; was again called at 5 P.M.; temperature 99° ; down, unable to rise; had all the symptoms of milk fever. Inflated the udder with oxygen, and gave small doses of belladonna. At midnight, six hours after, she was found up and eating. Owner left her as safe, to retire. Next morning at 8 A.M. I found her down and apparently in a very low condition; temperature 99.5° . I would not have suspected that she had been up, if owner had not given me the information. Again inflated the udder with oxygen. At 1 P.M., five hours after second inflation, she again got up; did not have a relapse.

Case III.—Jersey; found down in morning; evidently had been down several hours; subnormal temperature; all the symptoms of advanced milk fever; calf day and a half old. Inflated udder with oxygen at 8 A.M. At 2 P.M. still down; again inflated; next morning up eating, no complications.

Case IV.—Holstein; third calf, one day old; very heavy milker; down about three hours and very restless. Inflated ud-

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der with oxygen at 8 P. M.; next morning found her down, resting nicely; rolled her over and inflated udder with oxygen at 8 A. M. At 3 P. M. she rose and did not have any complication.

They all recovered quickly and with no trouble to attendants, as the animals soon regained consciousness and rested in a normal position.

The tank I used was made by the S. S. White Dental Co., Chestnut Street and Twelfth, Philadelphia.

The tank is 13 inches long and 3 inches in diameter, and holds 40 gallons of oxygen; it weighs 11 pounds 3 ounces filled, and 10 pounds 11½ ounces empty, the 40 gallons of oxygen weighing 7½ ounces. There are 5½ ounces in the tank after 7 inflations. The cost of the tank filled and complete with tubing, etc., is about \$10.00.

STERILITY IN CATTLE—ARTIFICIAL INSEMINATION.—In the *Veterinary Record* for Dec. 12, 1903, W. Paner, M. R. C. V. S., relates the case of a breeder who bought three calves from a friend, who had never had a case of sterility on his farm. No. 1 has had two calves, but, since then, although she has been served several times, remains sterile. No. 2 has never had a calf, and it matters not how frequently she goes to the bull she fails to become pregnant. No. 3 has given birth to three or four calves, but recently cannot be gotten with calf. It is at this time that artificial insemination is recommended. With the first, the os uteri being too hard to permit of the introduction of the inseminator, it was necessary to puncture it with a trocar. In due time the cow became pregnant, and calved without difficulty. In the case of the second cow less difficulty was experienced in introducing the inseminator, she becoming in calf and delivering without incident. In the third case, however, the result was negative. For what reason? Perhaps microbic infection. In the three animals there was no hæmorrhage from the operation.—(A. L.)

"I NOW have bound in good leather binding five volumes of the REVIEW and the current volume I shall also have bound. I find them handy for reference, and I often obtain valuable aid from them. How any veterinarian can practice without having the REVIEW as his constant companion I cannot tell. Many things found in it are worth many times its cost."—(D. D. Keeler, V. S., Salem, Oregon.)

ON THE USE OF THE STOMACH TUBE IN THE TREATMENT OF ACUTE STOMACH DISORDERS.

BY J. M. PHILLIPS, D. V. S., ST. LOUIS, MO.

Siphoning the stomach must become a universal operation in all cases where the life of the horse is endangered by gaseous distention of that organ, or where the progress of inflammation may be checked by the removal of fermenting or irritating matter from the stomach.

No veterinarian has been long in practice who has not been disappointed many times in the treatment of cases of acute indigestion, where gases form so rapidly, and in such volumes, that immediate rupture of the stomach or suffocation is imminent; or in those cases, less severe, where gaseous formation has been controlled, in part, and regurgitations are seen in the cesophageal groove, and later by gastritis with elevation of temperature to 101° - 104° , and pulse from 60° - 100° . Antiferments, antacids, antiseptics and physic—stimulants, carminatives and anodynes, followed by febrifuges and heart stimulants, have been administered often without avail.

All surgeons have decided views about the use of the trocar, of eserine, barium chloride or of arecoline. The indications for these are definite, and their remedial qualities are duly recognized.

The fact I wish to advocate with all due emphasis is, that the stomach tube is just as important in the treatment of acute stomach disorders as the above mentioned agents and like medication are in the treatment of intestinal disorders.

What more rational treatment of stomach disorders than to relieve that organ not only of dangerously distending gases, but also of the fermenting mass from which these gases are formed? What instrument better adapted to realize this treatment than a properly fashioned stomach tube?

The idea of siphoning the stomach has doubtless occurred to others as to myself; as well as the same question of, "Can

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it be done safely and effectively?" My first idea of a stomach tube for the horse was obtained, when only a boy, from a small treatise on the horse, the author of which I do not remember. In this pamphlet was a cut of a horse suffering from tetanus. A tube was shown passing through the nasal chamber into the œsophagus. The author claimed that through this tube the horse could best be nourished.

After entering the profession of veterinary science, the practicability of applying this method in cases of stomach disorders always appealed to me when in an extremity. Besides, there was the fact that, in human practice, the stomach tube has been practical and indispensable. Why not, with added reasons, should not a stomach tube for the horse be made eminently effective? Such were some of my ideas and questionings before experimentation began.

To pass a piece of stiff tubing seemed quite rude, and less promising in good results for the horse than such a stomach tube as the highly polished one used in the case of the human subject. Thus, for years, my ideas, deductions and conclusions remained without practical demonstration.

In 1895 I heard of Dr. H. B. Piatt's having employed a tube in cases of stomach derangement with success. Later in that year I saw him demonstrate the operation. I purchased a tube similar to his, and used it until I obtained one manufactured to meet more nearly my idea of what a stomach tube should be, the original dimensions of which I have changed but slightly.

Since October of the above mentioned year until the present, I have made use of the tube in my practice whenever it was indicated, and my ideas concerning it have passed from the theoretical stage to that of demonstrated certainty. The results I have had have been most gratifying in almost every case; in some, surprisingly so.

I can assure the profession that it is one of the most practical operations in veterinary surgery. Not that there is no chance of failure. In what operation is there assured certainty? In

the use of the tube, the percentage of failure is so low as to warrant an enthusiastic use of it. In my own practice 5 per cent. would cover it.

The use of the tube is indicated in acute indigestion, engorgement of the stomach, gastritis following acute indigestion, toxic gastritis and ordinary chokes.

While taking a post-graduate course at the Chicago Veterinary College in the winter of 1903, I met practitioners from nearly every veterinary college in the United States and Canada, and some from European colleges. I learned from them that none had practiced this operation, and none of their *alma maters* had taught any form of siphoning the stomach of the horse.

In view of my past success in the use of the tube, I felt it my duty to tell what I knew about it, and to express my belief, springing, in part, from my experience, that, through an intelligent use of the tube, a much larger percentage of valuable life can be saved not otherwise possible without the tube.

On invitation of the post-graduate class, I demonstrated the operation of passing the tube, having a clinic horse for a subject. I made four other demonstrations before different classes of the Chicago and McKillip Veterinary Colleges—all with no other purpose than to show the physical possibility of passing the tube. As a result of these operations on clinic horses some curious phenomena occurred and some interesting deductions were reached which the space of this article forbids to record.

HOW TO PASS THE TUBE.

When the use of the tube is indicated and decided on, wet the tube and dust it over thickly with powdered slippery elm bark (pwd. *ulmus fulva*) for about two feet of its length. Run the hand up and down the dampened and dusted surface to give the tube a perfectly even slippery surface. Vaseline or lard may be used if the operator prefers or has no powdered elm at hand. Dampen the left nostril (if you are a right-handed man) of the horse, and dust a little powder on it. With the horse in front of you, standing to his left front, have your assistant hold

him as quietly as possible with his head raised high enough for easy operation ; at the same time the assistant may hold up the disengaged end of the tube to prevent the horse stepping on it.

Enter the tube into the left nostril, previously made slippery, using the left hand to push the tube and the right to direct it. The index finger of the right hand will keep the tube on the floor of the fossa while pushing with the left hand, and so materially aid in passing the tube.

After the tube has passed from 10 to 14 inches, its further progress may be interfered with by the turbinated bones. If so, press or lift upward with the left hand (instead of continuing to push), and, reaching into the nostril as far as possible with the index finger of the right hand, press the tube downward. This will direct the point of the tube downward, and the steady pressure of the left hand, as indicated, will direct the tube toward the pharynx. *The tube should always be kept on the floor of the fossa from beginning to end of the operation.*

When the tube reaches the pharynx, the horse will usually attempt to swallow. Just now the operator should be on the alert ; for, if the tube is pushed at this moment, the passageway to the œsophagus is direct. The epiglottis has closed over the glottis and the muscles of the pharynx grasp the tube and direct it into the œsophagus. The certainty of this is known : (1) By the resistance that the muscles of the œsophagus give in grasping the tube. (2) When the horse swallows again, the tube is carried down a few inches. (3) No breath escapes through the tube—though sometimes the gas from the stomach will escape with such regularity at each expiration that the operator may be deceived as to its source. The sense of smell will help determine this.

If the tube enters the trachea, the operator will know it, for (1) The resistance to the tube is *very slight*. (2) It will usually excite a cough, though not always. (3) Expired air will be noticed coming through the tube. I have the assistant hold the end of the tube toward his or my cheek to determine the expi-

ration of air until after the tube has passed this critical point. After thus carefully pointing out these distinctive phenomena of passing the tube, it would be stupid even in a beginner to attempt to pass the tube on to the lungs.

The tube can often be passed without the horse's assisting by swallowing; but in other cases it is impossible.

Once the tube has passed this critical point, see that more of the tube is coated with the lubricant; keep lubricating two or three feet in advance of inserting. Gradually press the tube downward (better have the horse assist by swallowing), until the stomach is reached.

If the tube refuses to enter the œsophagus without the aid of the horse, which sometimes happens, enter the tube just far enough that the end will be within the pharynx. Then tickle the pharynx with the end of the tube by short, quick pushes and withdrawals. Stand in a position to watch the muscles of the throat. When the horse swallows, give the tube a long, quick push, and you have entered the œsophagus. Then proceed to push the tube at short intervals, thereby giving the œsophagus time to adapt itself to the circumstances, until the stomach is reached. This will generally be indicated by gas escaping freely, or by a gush of semi-liquid food.

A tube should have a mark indicating when the point has reached the œsophagus, and another to indicate when it has reached the stomach; so that, in the latter case, if there is no return flow, liquefying by injecting water may be begun.

As has been said before, by the time the tube has reached the stomach, the most of the gas may have escaped through the tube.

Once the tube is passed into the stomach, an opportunity is given for thoroughly emptying that organ of irritating and fermenting food, and for cleansing it with warm water and anti-ferments; leaving it in a condition to recover its normality. My practice has been to pump in from one-half to a gallon of quite warm salt water, and then to siphon it out with what it might bring with it. Then another and another injection and

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siphoning, until the water comes away quite clear; often using from six to twelve gallons of water. In acute cases, gas and semi-liquid food often escapes with great force. In cases of gastritis of several hours of duration where there is œsophageal regurgitations—the pulse 70 to 100 and the temperature 103° to 104° —the fluid that escapes is sanguinolant, resembling the contents of a highly colored serous abscess, and of a high temperature. It is marvellous how quickly these latter cases recover.

Generally from the moment the tube enters the œsophagus the gas begins to escape, and relief is so definite that the horse will stand reasonably quiet until the stomach is reached, and will be perfectly submissive through all the procedures that follow. It sometimes requires a little dexterity in those desperate cases to keep in a position to operate, but in comparing it with the use of the trocar in intestinal flatulence, I have found less trouble with the tube. The position at the horse's head as against the flank is to the operator's advantage. Besides, the horse's movements are more guarded in distension of the stomach than of the intestines.

In an occasional case the tube will persistently pass into the trachea. Should this be the case, and you are unable to induce the horse to swallow, the operation would prove a failure. In an abnormally small fossa, or in case of a tumor in the fossa you would fail. In either case it would be advisable to try the other nostril.

The tube should be withdrawn slowly and carefully. I think it advisable to give the tube a few moments rest at intervals; pushing the tube back an inch or so to allow the mucous membrane of the palate, and the Schneiderian membrane to regain their normal condition. If the tube has not been properly coated, and the fossa small, in withdrawing the tube you may cause more or less hæmorrhage, which in no case in my experience has been serious.

CHARACTER OF THE TUBE.

The tube should be very similar in appearance and quality

to the human stomach tube. When it is lifted by the middle the two ends fall in a straight line downward, and do not assume the curled up shape of common tubing. This is an important factor. The tube thus more readily passes over the glottis; and enters the cardiac orifice more easily. The end being conically shaped, it thereby finds less resistance. It is compressible, yet stable enough to pass without doubling. It is long enough, when inserted, to reach from the stomach to the ground, thus securing perfect siphoning. The external diameter is such that it will pass through the nasal chamber; and the internal diameter large enough and uniform enough to allow oats to pass. These essential qualities combined make the tube most practical and effective, whereas lacking even one of these renders it far less effective.

I have found it very difficult to have them made with the perfectness that I have demanded. In fact, I was unable to do so until I had made a visit to the factory to express my ideas and plans in person. I realized the fact that the operation would fall into disrepute if there was not an instrument that the profession could depend on.

ACCESSORIES TO THE TUBE.

(1)—A salt-cellar filled with powdered elm to dust over the dampened tube before passing.

(2)—The tube's efficiency is more than doubled when an injecting pump is used. The tube will relieve the stomach of gases, of itself very grateful to the patient. If the contents of the stomach are quite fluid, they will come out often with surprising force. But possibly, while you may be complimenting yourself on the results, the flow will suddenly stop. A large kernel of corn, or a mass of solid food cuts off the stream. Under the circumstances, some might blow the offending matter back into the stomach; but such a procedure is offensive, unscientific, unnecessary and less effective than if the offending matter is thrown back with warm water injected by the pump; which also serves to liquefy the contents and secure a better flow. The pump should *never be used to draw out the contents*

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of the stomach, as it is both unnecessary and dangerous. It should be used only to pump into the stomach, care being taken that no air is pumped in with the water.

OF WHAT THE TUBE IS CAPABLE.

(1)—Of averting rupture of the stomach by allowing the gases to escape.

(2)—Of preventing a reforming of gases by siphoning out the fermenting food.

(3)—Of washing out the stomach, thus leaving it in a state of rest and repair.

(4)—Of relieving inflammation of the stomach by removing all irritating matter from the mucous membrane.

(5)—Of relieving an engorged stomach, thereby preventing indigestion, enteritis and laminitis.

(6)—If not too late, of preventing death from toxic gastritis.

(7)—Of dislodging oat chokes.

The author prefers this method to all others.

CONCLUSION.

I would not wish to be considered over-zealous, so I have tried to be conservative as to results obtained by the use of the tube, as will be acknowledged by the thousands who shall hereafter adopt this mode of treatment.

Some may become over zealous and use the tube where it is not indicated. But a conservative operator will prize a stomach tube as highly as a trocar. We all know the trocar is often used when it is not indicated.

I make the assertion that the stomach tube will be indicated as a necessity to save life oftener than the trocar.

Need we say more of it?

DR. AND MRS. WILLIAM SHEPPARD, of Sheepshead Bay, N. Y., were surprised by a large party of friends, at their home on April 1, the occasion being the twenty-fifth anniversary of their wedding. They were the recipients of many beautiful presents, including a loving cup, the presentation speech being delivered by Mr. Frank T. Clark, superintendent of the Coney Island Jockey Club.

PHARMACEUTICAL ITEMS OF INTEREST TO VETERINARIANS.

BY H. JENSEN, M. D. C., WEEPING WATER, NEBRASKA.

Read before the 39th Regular Meeting of the Missouri Valley Veterinary Association, Kansas City, Mo., Feb. 15th, 1904.

Having so often in veterinary meetings advocated that veterinarians ought to prescribe in place of dispensing, and having met with almost a unanimous opposition, it occurred to me that a few pointers in regard to dispensing, as well as remarks on several preparations, favorites of mine, might possibly be appreciated. I still hold that the veterinarian who prescribes has a leverage and advantage over the one who does not. The intelligent prescriber has the friendship and assistance of the druggist as well as his admiration, because the veterinarian in this Western country who can write a good prescription is a scarce article. The druggist's admiration means a good word, a good word means money in your pocket. How often do we find medicines dispensed by some veterinarians in old whiskey flasks or beer bottles, not to mention the horrible incompatible mixtures that are poured down the throats of our dumb friends, and ointments dispensed in any old blacking-box handy, with a liberal amount of the contents on the outside, sometimes with, but mostly without a label, the component parts improperly mixed, and finally wrapped in a piece of old newspaper to complete the job. That is not a good advertisement for our profession. Now, gentlemen, remember I do not say that this is always the case, but only too often it is true. If, however, you are a dispenser, dispense right. Have your glassware clean, your ointment cans and jars the same; write a clean label and put on your box or bottle, wrap it in a nice clean paper and watch the result.

Manufacturing pharmaceutical preparations does not pay the veterinarian; it requires special knowledge, considerable apparatus and equipment; but there are a number of preparations

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used in every-day veterinary practice that you cannot afford to buy. Let me suggest a few with some modifications which without changing their physiological action reduce their cost.

There is a preparation made by Berry Brothers called colonial spirits; it serves all the purposes of alcohol for external use; it has a pleasant odor and none of the irritating effects of wood alcohol. By using this preparation you can manufacture your tincture of iodine for 40 cents per pound, by using the following formula :

Iodine resublimed, ℥ i
Colonial spirits, Oi

By using this menstruum you can reduce very materially the cost of the following tinctures frequently used in veterinary practice, viz. : Tr. arnica, tr. aloes and myrrh, tr. cantharides, tr. benzoin comp., and you will not be disappointed with the effects.

You cannot afford to buy Fowler's solution; you can make it for 25 cents a gallon.

Arsenious acid, gr. 600
Pot. bicarb., gr. 1200
Water, Ci

To make this you need a Florence flask of a pint capacity. Put the arsenious acid and pot. bicarb. into the flask, add 10 ounces of water and boil over an alcohol flame until dissolved. The Pharmacopœia prescribes an addition of spts. of lavender comp., which I think in veterinary practice had better be left out. It gives an odor which makes it impracticable to be given in drinking water, as some horses refuse to drink it, and without the spts. of lavender compound they will drink it readily without any trouble.

There are a number of fancy dusting powders on the market, especially the price, but here is one that has given me good results, and can be made for 12 cents per pound :—

Ac. boric,
Naphthaline,
Zinc carbonate, āā ℥i
Triturate thoroughly.

I have in my infirmary an antiseptic liquid soap that I think a great deal of when I want to render a surface aseptic previous to an operation. It is made as follows:—

Mercury bichlor.,	℥ iij
German green soap,	℥ xvj
Colonial spts.,	℥ x

Dissolve the soap in the spirits and dissolve the mercury separately in 2 ounces of the spirits, and mix the two solutions. I keep this in a barber's squirt bottle. A few squirts of this liquid soap on the point of operation and a little water, makes a good lather, enables the operator to cleanse and render the parts strictly aseptic.

In the various painful thoracic afflictions, such as pneumonia, pleurisy, etc., the question often arises, what shall I use locally? Hot water? Yes, very good, if it could be kept hot. Mustard? Too irritating and expensive. I have a stimulating liniment that contains no fats, does not blister, is a beautiful white preparation that never separates, and can be made for 30 cents a gallon. This is the way it is made:

Pulv. castile soap,	
Pulv. ammon. chlor., āā	℥ iv
Stronger ammon. water,	℥ ij
Fl. ex. quillaya bark,	℥ i
Turpentine,	℥ xxviiij
Water, <i>ad</i>	Ci

Agitate for 15 minutes. In all cases where you want a rubefacient, you can find nothing better nor more convenient. It possesses considerable value as a prognostic agent—in this way, if it does not make an animal move around pretty lively, I say "dead horse." This remark is not intended as a joke.

I am going to say a few words about blisters. We have all been disappointed at various times with our blisters, the reasons for which are triplicate. First, a poor quality of cantharides; second, improper methods of manufacture; third, improper application. To begin with, one should use nothing but strictly pure Russian cantharides. Next, how make it? Remembering that the active principle, cantharides, is a very volatile sub-

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stance, the ointment should not be heated to a boiling point in an open vessel, because the results will be disappointing; the cantharides will go up in smoke. Here is the way that I do it:

Pulv. Russian cantharides,	℥vj
Pulv. euphorbium,	℥i
Lard,	℔ij
Yellow wax,	℥viij

Procure a can with a tight cover of suitable size, triturate the euphorbium and cantharides together and put into the can. Melt the lard and yellow wax in a separate vessel, and when melted stir thoroughly into cantharides and euphorbium in the can, put the cover on tight and place over water bath for half an hour; let it cool, but when it commences to set (no sooner) mix it thoroughly together.

In conclusion, I will relate my experience with a preparation that is destined to take a front rank in veterinary therapeutics, in the treatment of malignant tumors and intractable wounds which have so far as I know been to the veterinary profession a source of annoyance and disappointment.

I shall relate a few cases. A year ago a gentleman drove up to my place and asked for a remedy to put on his horse's shoulder. On examination I found a deep-seated abscess in the levator humeri muscle. I advised opening, but this was objected to and foolishly I gave him a blister to apply. Four weeks later he brought his horse to me and it was a sorry looking object indeed. There was a well-defined tumor of a fibroid character. I punctured the centre of the tumor, expecting to find pus, but found only a solid mass. I directed him to wash it out with a 1 to 1000 formalin solution, then saturate a piece of cotton with an abscess-dressing I gave him and insert it into the wound. Three weeks later he was returned and showed no improvement; if anything he was worse. I then excised the entire mass and instructed him to continue to use the abscess-dressing. In a short time the horse was returned, the cavity was filled in with a fibrous mass, and then followed a six-months' siege of cutting and cauterizing, with no advantage.

About that time my attention was called to oil of thuja, manufactured by Messrs. Porter, Ryerson & Hoobler, of Omaha, and having some in stock I thought the next time he came back I would have something to give him anyway, praying for something miraculous to happen in the meantime. My patient came back. I removed all that fibrous mass that I could, and gave my client the following preparation:

Oil of thuja, $\frac{3}{4}$ ss
Lanoline, $\frac{3}{4}$ viij

I directed him to apply daily after washing the parts. The next I heard from the case the wound was looking fine and the owner was hopeful. Twenty-two days later the horse was brought in for my inspection. I found the cavity filled with healthy granulations and absolutely no induration around the edges of the wound. There was just a little raw surface, which is now completely healed.

Case No. 2.—Mr. Aug. Glaubitz, of Murdock, Nebr., brought to my infirmary in June, a bay gelding, seven years old, with a small wound on the right masseter that had hard indurated edges, a rough and angry looking surface, and an induration extending deep into the tissues. I excised it and sutured the wound. Four days later the horse was returned and the wound was beautiful to behold, the stitches torn out and the edges indurated. Mr. G. was asked to leave the horse, which he did. I excised it again with the same results, and in a short time the whole cheek was involved. About this time Mr. G. called, and, after taking a look at his horse, said, "Good-bye, 'Scott'", and I thought it was good-bye also. (Now I wish to say to a possible inquiry, why did you not use oil of thuja before it became so bad?) The fact of the matter is, I never thought of it. The thought struck me then that here is a good place to try thuja, and I prepared an ointment as before and applied it once a day after washing. The result was almost instantaneous; the induration softened up in a short time and the cure was complete.

Case No. 3.—J. T. O'Day, of Nehawka, Nebr., brought in a large gray gelding for treatment. Extending from the region

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of the neck ten inches down the right shoulder was a large, ill-smelling tumor that had been excised several times, but which had always returned. I excised it again and at once applied thuja ointment, and it was well in a short time.

It is also an excellent remedy in hypertrophy of the nasal septum. A four-year-old mare was brought for treatment. She was snoring so loudly that you could hear her a block away, and there was a mucoid discharge from the nose. Upon examination I found the nasal septum swelled to such an extent that it nearly closed the nasal passage. Formerly I have cauterized, but did not obtain desired results. I now prepared the following:—oil of thuja, 3 iij., terraline, 3 iv., and sprayed the nose three times a day. A cure was effected very shortly.

In affections due to animal parasites a correct diagnosis at once indicates the special treatment which should be applied to other cases. This, too, is true of diseases due to a specific-microbe.

Thus it will be seen from the foregoing that the laboratory and the veterinary practitioner are intimately associated, that the one exists for the benefit and enlightenment of the other, and as one devoting his entire time to laboratory work, I cannot urge upon you too strongly the necessity of a closer union, that each may benefit through the observations of the other.

DR. F. C. GRENSIDE, of New York City, has an article in the *Breeder's Gazette* of April 27, entitled "The Causes of Digestive Troubles." He often writes for that journal.

THE ANTI-DOCKING BILL before the New York Legislature came up for passage on April 7th, and was defeated by a vote of 23 to 13. Veterinarians from New York City testified before the committee that the operation of docking, when performed by qualified surgeons, under anæsthesia and antisepsis, was devoid both of pain and danger from complications.

"THE last volume of the REVIEW has outdone all predecessors in the quantity and quality of the material it has afforded its readers. The REVIEW is doing a great work in keeping its readers abreast of the times in matters that pertain to veterinary science, and in encouraging them along the lines of mutual helpfulness."—(S. Stewart, M. D., D. V. M., Dean Kansas City Veterinary College, Kansas City, Mo.)

THE LABORATORY AND THE VETERINARY PRACTITIONER.

BY CHAS. H. HIGGINS, B. S., D. V. S., PATHOLOGIST, HEALTH OF ANIMALS SERVICE, DOMINION OF CANADA.

Presented at the Second Annual Meeting of the Central Canada Veterinary Association, Ottawa, Can., Jan. 27-28, 1904.

In considering the subject of the laboratory and the veterinary practitioner, let it be understood that the term laboratory in this instance refers only to the laboratories engaged in the scientific investigation of pathological and bacteriological subjects, rather than those devoted to chemical and physiological studies.

That a laboratory can materially aid the practitioner goes without question in this age of specialization and higher research, but the average veterinarian of the older school is usually unaware of the assistance which can be rendered, owing to the advance in this particular line having been made since his entry into active practice, consequently he was not privileged to study the subjects of pathology and bacteriology during his college course.

It is necessary to briefly probe the history of modern pathological and bacteriological research in this connection. In so doing we find that advances in microscopy have been parallel with the advances made in the polishing of lenses, rendering it possible to detect some of the smaller forms of life and the pathological changes in a given organ or tissue.

Among the first microbes to be discovered was that of anthrax, by Davaine in 1879, and in view of our present knowledge, this is only what would naturally be expected, the organism being among the largest of any causing a disease fatal to animals and man.

A study of the literature of this particular disease is very interesting, dealing as it does with the skepticism of eminent authorities who were very conservative in the acknowledgment that a discovery which would revolutionize existing sanitary

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laws was about to be made. It was only in 1880-82 when that renowned bacteriologist, Professor Koch, corroborated the views of Davaine, that the theory was fully accepted by scientific men.

After it had been conclusively shown that anthrax was due to a specific bacillus, which, when taken directly from the blood of an affected animal, repeatedly washed, to remove the possibility of even a trace of the poisonous material, save the organism in question, could again produce the disease in susceptible animals, the possibility of other diseases having their origin in a similar organism was more readily accepted.

To-day there is scarcely a disease of a contagious nature the causative agent of which has not been discovered or its possible existence readily accepted.

The laboratories of to-day are engaged in the study of the more scientific points connected with the contagious diseases, devising better methods of preventive treatment and control, also they are trying to solve the cause of affections which appear to be due to a specific infectious agent which has eluded detection. There is too another branch of work, consuming a large share of their attention, and that is in the diagnosing of diseases or diseased conditions met in the field by veterinary practitioners and others.

As steel is sharpened by rubbing against steel, so is it possible for the veterinarian to sharpen his wits and be of more service to his clients by the keen observation of his cases and recourse to the laboratory for their further study. In this I do not mean that it is necessary for the veterinarian to take a course in laboratory methods and solve the questions arising, but I do hold that it is his duty to himself and his client to take advantage of existing facilities which are his for the asking.

In making the above statement it is only fitting that I should point out very briefly the manner in which you benefit and may further profit from careful and painstaking laboratory investigations.

All are aware of the many biological products placed on the

market for the prevention and treatment of the more common diseases of the domesticated animals. These are the result of careful laboratory investigation by conscientious workers. At present their use is limited, many being too expensive to be used in routine practice, but nevertheless they are the forerunners of cheaper products which will find favor. A few among the more common products which are within the reach of every one are anthrax and black-leg vaccines, tuberculin and mallein.

In the production of anthrax vaccine, by that noted chemist, Pasteur, was the origin of the various vaccines based upon the principle of an attenuated or weakened virus, of which black-leg vaccine is one.

Tuberculin and mallein have in the past few years attained great prominence in the eradication and control of tuberculosis in cattle and glanders in horses. These two latter products are toxines and contain the toxic products manufactured during their growth in a specially prepared broth to which a certain amount of glycerine has been added.

In order that laboratories may accomplish the ends for which they were established, it is absolutely necessary that they be supplied material with which to conduct their work that cases of a similar nature may be repeatedly studied in their various aspects. Veterinary practitioners are in a position to supply this, but, from neglect and carelessness, valuable material is lost, originating as it does in an obscure case. These very cases are the most interesting to the investigator and if careful notes are forwarded with the material, subsequent investigation may place the individual practitioner in a position to more correctly diagnose succeeding cases and apply treatment, which, if the affection is a contagious one, will aid in its prevention and possible eradication.

The forwarding of material to a laboratory for diagnosis leads the individual practitioner to exercise his powers of observation to a greater degree and should lead to more thorough autopsies, which are too infrequently performed by veterinarians, considering that there is scarcely ever any objection raised

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to this procedure. The holding of autopsies should be frequent, for they indicate the correctness of the diagnosis and also enable a more scientific treatment of future cases presenting similar symptoms.

The correct diagnosis of tumors, as to their structure, will enable the veterinarian to more easily decide as to the prognosis and the advisability of continuing treatment. If a tumor is of such a structure as is known to recur, the value of the animal is lessened; while if a microscopic examination indicates that it is benign there need be no fear of its recurrence.

OF American animals the moose, elk and caribou are natural trotters.

THE chiton, a sort of shellfish, holds the record of possessing 11,000 eyes.

ANIMALS that burrow and live under ground lose the power of sight or have eyes that are merely rudimentary.

"THE REVIEW enhances

As the world advances."

—*Newton G. Le Gear, V. S., Waco, Texas.*

A FREAK FOAL.—Dr. A. O. Kennedy, of Columbia, Tenn., writes as follows under date of April 11: "I have quite a freak in the way of a colt's head. The eyes are blended together in the centre of the forehead. The bone of the upper jaw stops about four inches short, but the lips extend on a little further, nearly even with the underlip. The colt lived about an hour after I delivered it. Otherwise the colt was perfectly formed."

DRS. T. EARLE BUDD and Whitfield Gray, whose terms as members of the New Jersey State Board of Veterinary Medical Examiners expire May 5, 1904, have both been re-appointed by Governor Murphy each for the full term of three years. On the fifth of this month it will be just two years since the Board came into power. The other members are Dr. T. E. Smith, Jersey City; Dr. T. B. Rogers, Woodbury, and Dr. Wm. Herbert Lowe, Paterson. The next meeting of the Board for the examination of candidates for license to practice veterinary medicine, surgery and dentistry in the State of New Jersey will be held at the State House, Trenton, some time during the month of June. The office of the Board has been established at Paterson, in connection with President Lowe's office.

ETIOLOGY AND TREATMENT OF AZOTURIA.

BY B. M. FLINT, V. S., FAIRLEE, VERMONT.

In that affection in horses termed azoturia—a condition characterized by spasms of the large muscles of the posterior part of the body and of the limbs—the urine is dark-colored, of high specific gravity, and containing a large amount of urea, and sometimes albumen in small amount. There is excess of albumen in the blood, which has undergone some complex chemical changes, and is in a degenerated condition, which render it capable of producing certain morbid phenomena in the system, such as inability to rise, convulsions and the presence of dark-colored urine. The chief cause is the allowance of food too rich in nitrogenous materials, with insufficient exercise, and the affection is mostly seen when the animal is put to work after a period of idleness. In renal affections depending on abnormal conditions of the blood, it is clear that the first indication will be to bring about a return of the vital fluid to a normal condition. This will be accomplished by acting on the bowels and skin, and paying special attention to dietetics.

In azoturia it is essential that the bowels be acted on by a purgative, and the skin by diaphoretics, so as to remove as expeditiously as possible the effete materials which exist in the blood, and which give rise to the characteristic and serious symptoms. If the urinary secretion be deficient, diuretics will be indicated, those being selected which have an effect on the solid portions of the urinary secretion.

Treatment.—First attend to the bowels, giving eserine, or arecoline, as a rapid intestinal evacuant; giving one grain doses hypodermically. Apply a mustard paste to the loins, keep the body well clothed; use the catheter if the case indicates paresis of the bladder.

As a diuretic, to increase the urinary secretions, and act upon the solid portions of same, and also as a diaphoretic, throwing a part of the burden of elimination upon the skin,

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the following formula has given me the best of results:

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 Spts. nitre dulcis, $\bar{\text{z}}$ ij
 Cold water, Oj

M. Sig.: Give horse at one dose, repeat in two hours if not relieved.

I find that jaborandi is an agent of great value in azoturia to relieve "deficient secretion; marked dryness and heat of skin and mucous tissues; pulse full, hard, sharp and strong. Muscular pain, muscular spasm. Urine suppressed, of deep color and high specific gravity. Marked restlessness; uremic poisoning and convulsions."

Works of reference: Hoare's "Veterinary Therapeutics and Pharmacology." King's "American Dispensatory."

DIPPING TANKS are being built in the Kansas City yards with a daily capacity of 1,500 cattle. The new rules of the Bureau of Animal Industry require the treatment of all cattle suffering from scabies. The "swim" in the vats is 40 feet long.

HORSES IN THE UNITED STATES.—According to the Government statistics there were in the country on Jan. 1, 1903, 16,557,373 horses of a combined value of \$1,030,705,959. On Jan. 1, 1904, the number of horses had increased to 16,736,059, an increase of 178,686 over the figures for 1903. In 1902 the total was 26,149 smaller than in 1903. The valuation of all the horses in the country at Jan. 1, 1904, was \$1,136,940,298. This valuation shows the horse stock of the country to be worth \$106,235,339 more than in any former year, though a larger total has been shown in point of numbers.

VERDICT AGAINST A VETERINARIAN.—Judgment in a civil suit was given yesterday afternoon in favor of David Vies against Dr. W. E. Wight, a veterinary surgeon, of Pittsburg, by Justice George Giles, the amount of the suit being \$150. Vies alleges that he shipped a horse to Pittsburg to have a large lump removed from its jaw. He alleged it was killed in mistake for a horse with an incurable disease. The surgeon failed to appear at the hearing and judgment for the amount of the value of the animal was given against him.—(*Pittsburg, Pa., Leader, April 15*).

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations, he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."

A CASE RESEMBLING ANTHRAX OF LONG DURATION.

By C. C. SHEPPARD, D. V. S., Centreville, S. D.

Will some one please name and classify the following case:

The history of the case, as given by the owner, on January 15, 1904, is that he first noticed in June of last year, that the horse (a gray gelding, 11 years old, weight 1050 or 1100 pounds, in good flesh) appeared stiff, arched his back, stumbled occasionally, but ate well, and did his work up to December. On turning out in the morning to go to water, he noticed he was acting queerly; did not go to the tank, but started in a circle, from left to right, head elevated very high, stopping occasionally and turning up lip; this only lasted a few minutes, when he went to the tank and drank; returned to barn, began to eat as usual. Was not worked for some time. On harnessing him up to do some work, noticed an enlargement on left side of neck, over fourth cervical vertebra. The growth was very slow; no other symptoms noticed. He called in a country practitioner, who gave him a liniment, telling him he had been stepped on by another horse, and would be O. K. in several days. The growth continued further up toward the head, but not showing any symptoms of pain. The gait gradually shortened and was *stilty*.

On the night of Jan. 15 he went down and could not rise. I was called the next day, Jan. 16, and found the horse cast in stall, limbs stiff, muscles rigid, pulse 28, temperature 99, respirations normal. Abscess on left side of cervical region over the fourth vertebra, extending anteriorly half way down to head, posteriorly to shoulder, resembling a dislocated vertebra, or a bulging of something against the levator humeri; muscle very hard. The horse showed signs of severe pain. When touched hard would open mouth in a slow, sluggish manner, and keep it open for some time. No fluctuation to indicate pointing or collection of pus. Bowels had moved that morning freely; fæces rather hard. The horse was raised, and propped up on sternum; partook of food in a greedy manner; drank some water; deglutition rather difficult. He was raised in slings, but refused to support himself—just doubled up, suffering so severe-

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ly that he was let down and bedded heavily. A physic ball was given; passed catheter; urine rather thick, but showed no hæmatin (not analyzed). A blister was put on the tumor; gave tonic for blood and heart. Returned the following Wednesday to find conditions more aggravated. Sub-normal temperature, 95; pulse 26, intermitting, arterial tension high, muscles rigid and set, *dead feel*; no results from physic nor blister given previous visit. Swelling extended farther toward head; showed signs of wanting to eat, but could not chew well; no attempt to move, except when pricked under tail with pin, and then only feeble. A seton was passed as deeply as possible, saturated with oleum crotonis, with orders to move frequently to encourage suppuration.

Owner reported Saturday that the horse had died the night before. I went next day to hold post-mortem. The carcass looked as if it had been blown up with a quill; very offensive odor, although the atmospheric temperature was from 20 to 36 below zero. As soon as the skin was punctured gas escaped in such volumes that it whistled, and was so offensive that my assistants left me. A square 4x10 inches was removed directly over the fourth cervical vertebra, underneath the levator humeri. The flesh was black as coal, resembling clotted blood, and as I could not stand the pressure from the gas, very *gracefully* made my escape to the fresh air, and ordered the carcass burnt, or buried very deeply, and covered with quicklime.

Now, if some professional brother will lend me assistance in making a diagnosis of the case, I will be very thankful. Anthrax in the horse as described by our eminent writer, Professor Williams, will cover the case, if it were not of so long duration. Was unable to make any microscopic examinations, or any cultures.

PIGS WITH BROKEN-DOWN SHOULDERS.

By E. I. SMITH, D. V. M., Franklinville, N. Y.

Considering the varied courses that nature may pursue, it is not strange that many cases with a simple history may come under one's observation which are indeed puzzling. The following is one that was very difficult for me to diagnose.

March 1, 1904, Mr. K. requested me to visit his premises and diagnose an ailment that was prevailing among his young pigs, which showed symptoms far different than he had ever observed.

History.—The pigs were about six months old, and were

taken away from the sow at four weeks of age and placed in a small sty; then fed upon bran, middlings, meal and ground oats, changing from one food to another at different intervals. The feed was mixed with water, no milk at all whatever being given. They had experienced no rough handling; apparently flourished at the beginning upon the feed. There was but very little opportunity for the animals to have access to the earth floor. At the above date they would weigh about fifty pounds each. So far as known, they were born perfectly sound and appeared as such when removed from the mother.

Semeiology.—There were different stages of the trouble. The worst ones were hardly able to move from their nest, and when forced to move would squeal and show signs of pain. When they walked their forward parts would sink down, protruding elbows, short stepping with the fore feet, cautious and slow movement; would easily go down upon the sternum if forced to move fast. Some of the others that were just showing the first symptoms, would walk stiff-legged in front, show the same signs of pain when first moved, but they were able to approach the trough and defend their rations, while the more advanced subjects were unable to obtain their food against the stronger ones, consequently they were beginning to show emaciation. One of the most severe cases was caught, a free movement and tension was exercised upon the fore limbs, which evidently caused pain. The pigs appeared normal in every other respect; movement of bowels and the urine appeared natural. They would eat freely so long as they were able to come to their food.

Post-mortem.—One of the most advanced subjects was destroyed and a careful anatomical dissection was carried out. The internal organs were perfectly normal. The joints were free and easy in motion, and upon excising the capsular ligament the articulations were found to be well lubricated, smooth and clear in appearance. While dissecting around the scapulo-humeral joint a slight congestion was observed in the subscapularis muscle. The muscles were carefully removed from over the entire area of the lower extremity of the scapula. There had been a fracture of the scapular neck all the way around, giving a marked convex surface to the external face of the scapula due to the abnormal position the parts had taken during adhesion. The parts had begun to unite, as they were, solidly together. Both scapulæ were alike. One of them was boiled out, but the parts still retained a firm attachment to each other, indicating every appearance of recovery.

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Treatment.—Thinking the fracture in so many at once was due to a lack of proper bone nutrition, I was led to prescribe the following:

R Calcii phosphas, ℥ viij
 Ferri sulphas, ℥ i
 Misce. Sig. Fiat chartae No. xx. Give one powder daily to all of the pigs.

The treatment, on the other hand, may not seem feasible, but I felt that an experiment would not be out of order under such severe circumstances, and if one treatment failed another could be resorted to.

After three weeks of experimenting I saw Mr. K. and he informed me that they were improving, and he thought he was going to raise all of them for marketable shoats. I do not presume through such a limited experience in treatment to claim the credit for recovery due to the above prescription, but the question is, in my mind, What was the real cause of the fracture in so many at one time, and was the treatment applicable?

DENTIGEROUS CYST.*

By Dr. J. F. ROUB, Monroe, Wis.

On September 12, 1903, there was a two-year-old colt delivered to me at my infirmary for treatment. Said colt had been under treatment by owner for six months previous to above date. The only visible sign, externally, of any ailment was a fistulous opening on the middle and antero-external border of the left ear, discharging from two to four ounces of pus every twenty-four hours.

Modus Operandi.—Cast, the colt was firmly secured. I proceeded with the operation, cleansing the parts. I passed a bougie down on the inside and along the left border of the ear down into the conchal cartilage. With scalpel, I laid the sinus open, but cautiously avoided the conchal cartilage, for it would be rather embarrassing to the operator to have an ear drop or lop to one side after an operation. The sinus extended down as far as the middle of the internal surface of the zygoma and over the coronoid process of the inferior maxilla. After laying the sinus open to the latter point, by manipulation I could detect what I surmised to be a dentigerous cyst, it being convexed externally. With molar forceps, and pressing them down and over the cyst, I broke down the alveolar process, and then I had

* Read before the Wisconsin Society of Veterinary Graduates at the Annual Meeting, February 4, 1904.

no difficulty in removing the tooth. After cleansing the wound, I liberated the colt, which was turned into a box stall.

In the course of a few days there was a profuse discharge. Not being satisfied with the condition and appearance of the wound, I secured my patient and made a thorough examination, being satisfied that I had another tooth to contend with, but did not make the second operation on this date. For two days previous to this at our semi-annual meeting at Racine, Dr. Beckwith, from Shullsburg, stated that he would visit me the following week and take our County Fair in at the same time, I promising to have a few cases to operate on on this date. Likewise I saved this subject for one of our clinical cases. Dr. Beckwith, and I assisting, removed two teeth just inferior to the one I had previously extracted.

Treatment.—Simply tincture of iodine once per day. The colt made a fine recovery.

Now just what channel misplacement of tooth cells take during foetal life that produces dentigerous cysts I will leave to the society for discussion.

COMPLETE OCCLUSION OF OESOPHAGUS BY GASTROPHILUS EQUI.

By EDWARD L. LEWIS, M. D. C., V. S., Austin, Tex.

On March 30th, in response to a message, I was called to see a sorrel horse, 10 years old, belonging to Mr. J. H. P. Davis, of Richmond, Texas. Upon arrival, I found him down, sweating in patches, mouth partially open, mucous membranes pale, pulse feeble. Every few moments he would raise his head and look to the side. He rapidly lost ground, and in twenty minutes or so was dead. In an extended and careful post-mortem held immediately, every organ and part was examined, but absolutely no pathologic or abnormal condition was apparent until I had opened the stomach. Then on feeling around the cardiac orifice of the oesophagus I came upon a semi-soft, bulky mass. Upon exposing the lumen, I found it completely closed and packed with bot worms. Inflammation of the oesophageal walls was present. The occlusion was one and a half inches from the cardiac orifice. There was not a vestige of food in the stomach, but instead a goodly number of the same species. Stomach pale, flabby, internal textures anæmic; general marasmus.

The case is an interesting one only because they can be con-

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sidered rare—at least, I can find no records; and because it proves that sometimes the old bugbear of the farmers (bots) will cut funny capers. This horse had been on the decline two weeks before death.

AN INTERESTING CASE OF DISTOKIA IN A COW (MONSTROSITY.)

By J. S. LESLIE, V. S., Sedalia, Mo.

The case was in a Durham cow, five years old. Was called to see this case March 5, and when I arrived found all four feet of foetus protruding only as far up as the fetlocks. I first tried to locate the position of the foetus, but was unable for some time to do so. I finally located the head, which was turned to one side; then I anæsthetised the cow with chloroform, and tried to



FIG. 1.—Showing position of Foetus.



FIG. 2.—Showing where abdominal cavity should be.

push the hind limbs of foetus back, by using the repeller, but was unable to do so. Then I resorted to the shears, and removed the hind limbs, this being done very easily. I then removed the foetus, and discovered I had a monstrosity.

The head was well developed, but was directly between the

shoulders; the abdominal cavity was absent, there being no skin nor muscles over the intestines whatever; the vertebral column from the head to the hips was in a rainbow shape, the hips being directly over the shoulders. This is why all four feet protruded. With one hind limb on either side of the head, over the back, the intestines were exposed and enveloped by the placenta only, and were not very well developed; the lungs and heart were very small, the lungs not larger than a man's fist; the vagina and rectum were one, the perineum being absent.

A PIG WITHOUT AN ANUS LIVES TWO MONTHS.*

By Dr. J. F. ROUB, Monroe, Wis.

The latter part of last June I was called out five miles to treat a cow. Just as I was ready to start for home, my attention was called to a pig near by that was feeding on grass with the rest of a litter of six. The pig was hearty and eating as greedily as any of them in the litter, but vertically its diameter was greater than its length. I asked the owner to catch the pig and we would make an examination, it being a male, but no testicles as well as no anus being visible. Previous to this date having operated on young animals and produced successfully an artificial anus for them, I thought I would do likewise in this case, but failing to find any excrement, I destroyed the pig.

Autopsy.—Found both testicles in abdominal cavity. The end of the bowel in formation represented the end of a finger stall and was situated three inches anterior and on a level of the floor of the pelvis and suspended by mesentery. This pig was two months old and, in my opinion, would have lived three weeks longer. Anyone doubting the veracity of facts in this case may write to William Clayton, Monroe, Wis.

A CASE OF OBSTETRICS.

By C. A. BAXTER, V. S., Circleville, Kansas.

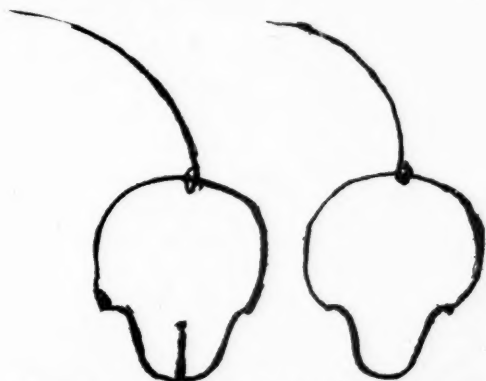
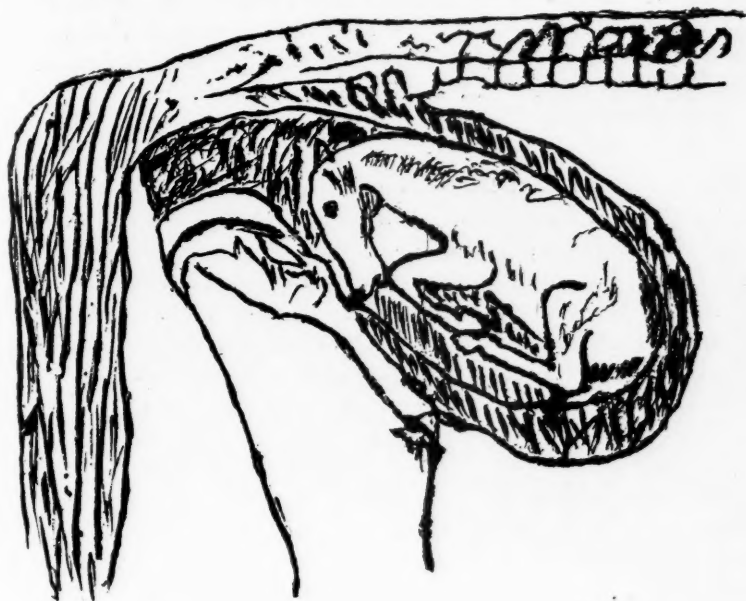
Called at 6 P. M. April 9, 1904, found mother down; ears of "mule" foal protruding from vulva; frequent severe labor pains; foal was tightly wedged in pelvis. I first placed ring with small tip over nose; tip between lower maxilla; traction cord held by an assistant. Second, placed ring over posterior limb, between hoof and fetlock: then another over remaining

* Read at Annual Meeting of the Wisconsin Society of Veterinary Graduates, February 4, 1904.

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limb. Now placed repeller against breast. Had an assistant to repel, while I grasped hoof with palm of hand. With back of hand against the vaginal wall to keep hoof from injuring



Ring to slip over nose (small point presses in between inferior maxillary bone.)

Ring to slip over foot (two of them.)

mother, brought traction on that limb, which brought it in delivery form. With the other posterior limb the same procedure. I was now ready to bring the head in place, and the foal was delivered with light traction. Why I use rings instead of hooks: should they become loose you will not injure the

mother. I have used most all kinds of obstetric instruments, but I find my rings safer and easier to handle than any hook, chisel or saw. Try them. Any blacksmith can make them under your instructions. Have them heavily nicked; use sash cord for traction cords. I find it best to get the limbs in place first, as the head is forced up and presses the arm very tightly if straightened first.

It is believed that the ostrich can see objects behind as well as in front of it. Any one standing directly behind an ostrich can see the pupils of its eyes.

A DISPATCH from Boston states that glanders has invaded some of the leading private stables of that city. The old campaigner Gill Curry, 2:09 $\frac{1}{4}$, is stated to have contracted the disease and the city veterinarian has ordered him shot.—(*Breeders' Gazette*.)

MILK FROM THE ZOÖLOGICAL VIEWPOINT.—Diffloth, in the *Presse Medicale*, points out that cows "educated" to give 25 quarts of milk daily, by massage of the udder and giving of fat foods, when their natural output is only 8 quarts, do not give so good a quality of milk under the circumstances.

"I HAVE had the REVIEW for nineteen years, and would not be without it. I look for my REVIEW every month, and when I compare the present numbers with those of the old days I find a great change for the better; it has grown so large, and it is up-to-date every time."—(*E. M. Beckley, D. V. S., Meriden, Conn.*)

TEXAS FEVER.—An article in a recent issue of the *Review of Reviews* has it that, "mortality from Texas fever has been reduced from 75 to 10 per cent. By a conservative estimate through the work of the Texas and Missouri Experiment Stations alone there has been saved to the cattle interest of Texas not less than \$350,000, and the work is now only well started."

THE address on "Agriculture in the Common Schools", delivered by Dr. W. H. Dalrymple, of the Louisiana Experiment Station, has been printed and issued in pamphlet form by the State Board of Education of Louisiana. This address was delivered last February, and was well received, and is very valuable. We regret that we have not space to reproduce it. It may, however, be obtained by applying to the State Board of Education, Baton Rouge, La.

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EXTRACTS FROM EXCHANGES.

GERMAN REVIEW.

By ADOLPH EICHHORN, D. V. S., Bureau of Animal Industry, Kansas City, Kansas.

THE APPLICATION OF THE SILVER PREPARATIONS OF CREDE IN OPHTHALMIC CASES [*Dr. P. Meyer*].—M. applies the powder of itrol on wounds of the conjunctiva, also in operations on the eyelids, lachrymal glands, etc. According to his experiences, it very soon diminishes secretion and suppuration, usually the swelling disappears, and speedy and lasting improvement follows. He obtained the same satisfactory results with the itrol treatment in trachoma, pannus, inflammations of the cornea, etc. In operations on the eyeballs, M. works exclusively with collargol. The silver preparations of Credé secure the fields of operation aseptic, and besides are harmless.—(*Centralbl. f. prakt. Angenh.*)

THE TREATMENT OF SEPTIC AFFECTIONS WITH INJECTIONS OF COLLARGOL [*Dr. Credé*].—Credé recommends, in cases of infections, where quick and effectful action is wanted, the intravenous injection of collargol, in which after a few hours a marked improvement is to be noticed. If this improvement is only of a short duration, the injection is to be repeated after 8 to 12 hours; otherwise it is sufficient to repeat it after 24 to 36 hours. Credé uses his new, more soluble (1.20) and stable collargol in a 2 per cent. solution (injecting in man 0.08 to 0.12 gm.), and he intends to raise gradually the percentage to five. Credé applies collargol, in severe cases of phlegmonæ, gangrene, septicæmia, puerperal fever, pyæmia, anthrax, etc., and obtains remarkably quick and lasting results.—(*Archiv. f. klin. Chirurgie.*)

RECOVERIES FROM SPINAL MENINGITIS IN DOGS WITH ESERINE-PILOCARPINE INJECTIONS [*Stiethenroth*].—The author uses successfully injections of eserine-pilocarpine in spinal meningitis of dogs, prescribing the following formula: R. Eserine, 0.05 gm.; pilocarpine, 0.10 gm.; aquæ dest., 20.0 gm. M. fiat solution. Soon after the injection the reaction appears; the number of respirations are increased, evacuation of the bowels and vomiting follows with profuse salivation. In some cases the animal will appear lifeless. After the reaction passes away, signs of improvement are noticeable. To prevent extreme ex-

haustion of the animals, the injection should not be repeated before the third day. During the treatment only small quantities of meat should be fed to the animals, and shortly before the injection all food should be omitted. A dog was brought before the author, with the history that the animal shows signs of lameness in the hind legs. On examination abrasions of the toes were noticeable, and on quick motion urine was passed in drops. The diagnosis was established, and as the author had not on hand the required drugs, the treatment was not applied before the third day, and by this time complete paraplegia was present. After the injection of 1.0 gm. of the eserine-pilocarpine solution, the same day the dog was able to use its hind legs—however, the walk was unsteady, the toes touched the floor with their upper surfaces. After three days 1.5 gm. was injected, the walk of the animal was more steady, and only showed slight weakness when running. On the sixth day 2 gm. was injected under the skin, and the dog was discharged cured on the same day.—(*Berl. Thier. Wochenschr.*)

ITALIAN REVIEW.

By Prof. A. LIAUTARD, M. D., V. M.

FISTULOUS FRACTURE OF THE LOWER JAW OPPOSITE THE RIGHT INTERDENTAL SPACE [*Dr. Guiseppe Pichi*].—Consulted for a horse, bought recently at a fair, which was carrying on the right side of the jaw a bony tumor a little back of the region where the chain of the curb-bit passes, there was no history to be obtained. The animal refused all food and was rapidly losing flesh. A superficial examination revealed the fact that not only the exostosis was situated on the outside of the jaw bone, but it also spread on the inside in the intermaxillary space. The growth was not painful, the skin movable over it on the outside, but on the inside it looked inflamed. The animal was ugly and would not submit to the examination of the mouth until he was properly secured, when by pulling the tongue out of the mouth, a fistula was observed in the interdental space, which communicated with a cavity, having the appearance of an alveolar cavity in way of cicatrization. This was wide, measured four centimetres in circumference and was packed with fermenting food. As exploration with a probe was about to be made, the horse fought terribly and further consideration had to be postponed. The cause of the trouble was not detected then, but its nature was a fistula, which demanded sur-

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gical interference. This was carried out by the throwing of the animal, disinfection of the wound, washing of all fermenting food and scraping of all the necrotic loose pieces of bone. The original trouble had been a comminuted fracture, due to a blow or what? and had repaired as best it could naturally. A counter opening allowed careful and repeated washing of the cavity. Small splinters of bone now and then sloughed away, and at the last visit made by the author, the case was doing well.—(*Il Nuovo Ercolani*, Oct. 15, 1903.)

UPON UMBILICAL HERNIAS [*Prof. Gualducci*].—The author has often observed those hernias in colts; they are due to the bad condition of the feeding, and seldom do they disappear in adult life. In colts of three to seven months, he resorts to the solution of sublimate in collodion, and later uses nitric acid. In hernias with a wide ring, plasters and bandages are applied with much benefit. These are left in place for 30 or 40 days. Umbilical hernias of young pigs disappear with age; they are treated successfully with bandages and plasters. In bovines these hernias are rare. Gualducci has observed only five cases. In one the tumor was as big as two fists. It was treated with the application of a clamp and ligature. With the other four, the trouble took place immediately after birth, the viscera protruding outside. Two died rapidly. A third was operated by disinfection of the protruding gut, its return into the abdomen and suture of the skin. Recovery followed with complications. In another case the protruding small intestine had been torn by the mother of the calf. Some fifteen centimetres of the intestine were amputated, the intestines sewed up, returned into the abdomen, the ring, muscles and skin, were brought together with sutures, and a bandage put over the whole. Death took place the fifth day, from broncho-pneumonia. At the post-mortem the intestine was found perfectly healed.—(*Giour. del R. S. et Acad. Vet. Ital.*, Oct., 1903.)

CONTAGIOUS CATARRHAL METRITIS IN MILCH COWS [*Dr. R. Saccant*].—Having failed in finding any account of similar trouble in the books at his disposition, the author publishes the following as a contribution towards its further study: Out of two hundred cows, kept in a little town, some fifty were affected with the following symptoms: In general appearance nothing abnormal, good appetite, rumination, milk secretion not changed, but a catarrhal discharge exists from the vagina. It has the consistency of albumen, rather white in color, and in some cases yellow. The quantity varies between 500 and 1000 grammes

a day. At first it was considered of little importance, but as it lasted, seemed to render the cows sterile and many had to be sold to the butcher, the case assumed a more serious aspect. On inquiring as to the cause, it was found that all the sick animals had been served by the same bull; but when this animal was looked for he could not be found; all that could be known was that he had a swelling at the penis. The investigations had to be limited to the condition of the cows and the characters of the discharge. At the autopsies of the animals that were slaughtered the uterus was found larger than normal, with the walls thickened and congested. Its cavity contained a certain amount of the discharge. At the examination with the microscope this was found to contain a microbe, moving slowly, coloring well with aniline preparations, but not taking the Gram—not pathogenicous to rabbits nor guinea-pigs—not growing in gelatine nor agar at the surrounding temperature. The incubation of the disease is rather slow, varying between one year and 18 months. The cows first diseased were more sick than those affected towards the last. The treatment consisted in antiseptic injections.—(*Il Nuovo Ercolani*, Jan. 15, 1904.)

A CASE OF POLYDACTILE [*Dr. G. B. Dalan*].—A six-months-old colt, product of a native Italian mare, by a Russo-American stallion, had two supplementary fingers, one on each of the fore legs. Situated on the inner face of the metacarpophalangeal region, with nail and bony phalanges, they interfere with the action of the little animal, by their position and their size, and were besides very unsightly. Their amputation was decided upon at once, and carried out. Thrown down, the colt was properly secured, the parts well shaved and disinfected, and the supplementary organs removed one after the other. There was no bleeding of any account, no section of important tissues, nerves or others, and after sewing the skin, an antiseptic dressing was applied. Cicatrization, almost without suppuration, took place in a few days. As soon as the animal was relieved, he jumped up, traveled freely and went to his mother for a good sucking. Of the two supernumerary organs the right one was the longer, attached to the middle of the inside of the fetlock and adherent to the cartilage of the internal large sesamoid; it hung down as far as the coronary band of the normal hoof. The finger of the left side, was also shorter and less developed; it was attached to the lower extremity of the internal small metacarpal bone, and reached only the middle of the pastern. Recovery in seven days. (*Clinica Veterin.*, Jan. 30, 1904.)

DERMOID CYST ON THE SHOULDER OF A MARE [Dr. Enrico Bergamaschi].—At a previous visit, the author had already noticed on the right shoulder of this mare, in the superior third of the acromian spine, the presence of a tumor, measuring some 14 centimetres in length and 4 in width, a tumor which by its spherical shape and puffy appearance he had considered as a cyst, for which he advised removal. The owner, who wanted to dispose of the mare, objected to an operation, but finally consented to it. The animal was cast, and the parts thoroughly aseptised. An exploring puncture made, allowed the removal of a whitish, milk-like fluid; through a small incision, a mass was extracted, consisting of hairs glued together with a substance looking like sebaceous secretion. This mass measured 13 centimetres in length. The incision was enlarged and a cavity, lined with hairs, was found formed by a cystic membrane, which was carefully dissected out. The surface was then thoroughly scraped with the knife of Volkmann, and the wound closed with stitches. Cicatization by first intention was perfect in two weeks.—(*Clinica Veterin.*, Feb. 13, 1904.)

CLINICAL OBSTETRIC OBSERVATIONS [Dr. Domenico Gualducci].—Among those recorded by the author are two referring to abnormal retention of the foetus. *The first was in a cow.* Taken with violent pains, she was supposed to be suffering with retention of urine. She made violent efforts and expelled only a few drops of water. As it had been reported that the cow had not been covered, she could not be pregnant, and by the story of the stableman she had not been seen to urinate, it was decided to use the catheter. As this was going to be introduced, the cow made a violent effort and through the vulva a viscous material flew out. Vaginal exploration allowed the hand to feel a collection of dense liquid, of dark chocolate color. After extracting about two litres of this, the hand was pushed easily into the uterus, when it came in contact with a hard body elongated and irregular in shape, ended at one extremity by a round swelling as big as a child's head, the other extremity was rough and knotty. A cord was attached to it and the extraction of the mass completed with moderate traction. It proved to be a foetus. On making further inquiries about the case, it was found that the cow had been covered some 30 months before, and had one calf in due time. After a few months the cow did not come in heat, the abdomen became large, but after a while it passed off. Since that time everything passed on well, but three or four times she had similar short attacks. *The second was in a*

sow. The animal arrived at the epoch of parturition, was taken with violent expulsive efforts, and the author was requested to attend to her. On making a vaginal exploration he found that he had a case of complete torsion of the uterus to deal with, and, failing to reduce it, he advised Cæsarian operation. The owner would not allow it, and asked only for a soothing preparation to allay the pains of the animal. This was granted. The sow had the preparation given, fell asleep, and by degrees recovered completely. Three months after she was slaughtered, and in the right horn of the uterus six mummified foetuses were found. In the presence of such a result, the author suggests: If in some cases of distokia, it would not be more prudent to resort to similar indications of a sedative and quieting treatment rather than to an operation more or less dangerous.—(*Clinica Veterinaria*, Feb. 13, 1904.)

A CASE OF DYSTOKIA DUE TO A MONSTROSITY.—Dr. A. W. Baker, of Brasher Falls, N. Y., contributes the following interesting case: "In looking over various numbers of the REVIEW and reading the articles of interesting and instructive freaks of nature, I recall to mind a very strange and interesting case that came to my personal observation of a freak in a Jersey cow owned by H. L. Davis, of Winthrop, New York. I was called to see the patient and found upon examination that various methods had been exerted to expel a calf for eight hours previously, the cow suffering greatly. On exploration I found the following conditions: Anterior presentation, with one fore limb and head round position; the other fore limb was in a crippled condition and bent back under the sternum, followed closely by one hind limb. The other hind one was also in a crippled condition and twisted around the neck. The head and neck were normal; as were also the thoracic organs; the abdominal organs were all expelled from the cavity. The skin was normal except that over the ventricle part of the body, which seemed to be turned inside out, but the umbilicus was in a normal condition. The posterior part of the calf seemed to be turned in, or in an inverted condition. After performing embryotomy and removing the crippled fore limb from the body, then the head and posterior limb, proceeded to extract the calf, with the assistance of ropes and usual precautions which came away after some slight resistance. In all my experience I never witnessed or attended such a mysterious and puzzling case, and by which a practitioner might be misled."

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ARMY VETERINARY DEPARTMENT.

PETITION OF ARMY VETERINARIANS BEFORE THE GENERAL STAFF.

Dr. W. R. Grutzman, 15th U. S. Cavalry, Fort Myer, Va., informs us that he personally presented the petition of the army veterinarians to the Adjutant-General of the Army, on February 1, 1904, and that it has been forwarded to the General Staff about February 14 inst. Since then he has been unable to learn anything further of the fate of the petition, but he has been advised that it will have to take its natural course as regards consideration by the General Staff. As soon as he learns anything definite he will promptly report.

* * *

THE "NOCARD TREATMENT" OF GLANDERS.

By OLOF SCHWARZKOPF, V. M. D., Fort Assinaboine, Montana.

The address on "glanders" by Dr. J. G. Rutherford, of Canada, published in the "Proceedings of the American Veterinary Medical Association for 1903," just to hand, is of particular interest to army veterinarians who had to deal with glanders in the Philippine Islands under the most trying circumstances. They were trying, because an army in the field is kept moving constantly, and the well-known and approved methods of quarantining infected animals and of disinfecting premises cannot be enforced. At least no provision has been made so far in the army regulations for the application of repeated injections of mallein; all that is permitted by regulations is the killing of such horses as are actually diseased with glanders. However, in two outbreaks of glanders in the Philippines the obstacles in the way of applying this modern method were overcome, and the results obtained were most gratifying. As Dr. Rutherford and the other speakers on the subject call for more experience, it appears proper to contribute towards statistics, and as these tests were undertaken in a tropical climate, the particular results obtained ought to be of interest to army veterinarians who may face similar conditions in the future.

History of the First Outbreak.—On arrival at Vigan, P. I., in September, 1900, I found the horses of the 3d Cavalry stationed there and at various neighboring temporary posts extensively infected with glanders. It could not have been otherwise. The disease had been introduced into the Islands

with our horses—or it had been stationary there, as others wanted to have it—and little had been done to grasp the situation or apply rational measures to check its spread. The horses of this regiment had just gone through an extremely hard campaign with General Young in Northern Luzon. They had been living on the country as best they could, and they were still living on rice in hulls and native grass when I first examined them. They were not in a poor physical condition, but they evidently lacked their inborn vigor and natural resistance against disease. They had been a superior lot of horses, but now they were “heart-broken,” as an officer termed it, and they were certainly ripe for glanders.

In one troop-stable I found three horses isolated in a corner, two in an advanced stage of glanders, the third just developing symptoms of nasal glanders. The “stable,” containing 119 horses, consisted of a temporary shelter made of bamboo-poles, roofed with coarse, native grass. Parallel with it and not ten feet apart, was another troop-stable, containing about the same number of horses. Yet, these three horses, so visibly affected with glanders, had been kept there for some time owing to a doubt as to whether the disease was really glanders or not. After some parleying with the responsible officer, who did not want to have it known that he had glanders among his horses, he finally agreed with my diagnosis, and I reported the facts to the proper military authority. A Board of Survey was called, and the post-mortem examination undertaken, gave overwhelming evidence of the presence of the real, old-fashioned glanders. Eight more suspicious horses were at once isolated, which soon developed clinical symptoms of glanders, and they were destroyed as soon as they presented clearly defined cases. Two horses were killed on October 19, 1900; one horse October 23, 1900; four horses December 7, 1900; two horses December 24, 1900.

In the meantime all the horses of this troop had been carefully examined and watched, and the conclusion was reached that there were at least twenty more suspects among them. It was also found that when a horse, ever so slightly suspicious, was taken out with a detachment in pursuit of insurgents or some other duty requiring several days absence with hard riding, it would return with a clearly developed case of glanders. Hardship had fanned the disease. Under all these conditions, including the constant intermingling of the horses on the picket-line, it appeared hopeless to stamp out the disease by killing off

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the actually diseased horses, unless all were killed, and then we would have no mounts. It was, therefore, natural that I looked about for a plan of action more reasonable in scientific theory and more practical in its effects, a plan that would be more in accord with our modern postulates of veterinary hygiene. Nocard had proclaimed to us at that time that when "horses are subjected to repeated injections of mallein, if they are not actually cured by these injections, they at least cease to react, and remain fit for work." That was a tangible proposition which fitted our case well. But when I confided my plan to the Adjutant he asked for printed authority on the subject, and being without any veterinary literature whatever, I had nothing to offer but the above terse statements of Nocard. He also thought it was not in accord with the army regulations. However, he was willing to help me and advised me to first get the sanction of the Troop-Commander. This officer was an old Indian fighter, a hard nut to crack, an autocrat in his realm but an excellent horseman who loved his horses dearly. I appealed to this latter sentiment, holding out hope of saving at least some of his well-trained horses which had pleased so many admirers by their brilliant feats in Madison Square Garden a few years previous. He listened attentively to what I said about "Nocard's *experiments*" and reflected long and hard. I kept silent, seeing that he was fighting it out with his inner self. Finally he said: "I have never heard of this 'Nocard *treatment* for glanders.' It's either a good thing or it is a humbug. You say the old treatment is hopeless, I say it's brutal besides, a disgrace to your science. D . . . the regulations, we are in war. It becomes my duty to save what can be saved. I am with you, and I shall recommend this new treatment to the Colonel. Now, doctor, try to save old 'Rubber Neck.'" (R. N. had been his champion performer.) The next day I was called to the Colonel, who informed me that the Captain had explained to him "Nocard's *treatment*"; that it was not in accord with regulations, but that I should make a written report, including my recommendations, and he would favorably endorse them. This was done; the recommendations were approved by higher authority, and on Dec. 20, 1900, I was told to go ahead. This little tale explains the birth of the term "Nocard treatment" in our Army, which I hope has come to stay in commemoration of the name of our lamented French colleague.

The Test.—Mallein was telegraphed for from the Quartermaster's Department in Manila, and arrived by the first steamer.

It proved to be seven months old, a cloudy, semi-fluid substance, with a smell of decomposition. A long telegram was forwarded, explaining that mallein must be fresh, less than three months old, carefully packed and stored, and not exposed to the rays of the tropical sun. A new supply finally arrived a month later, and preparations were at once made for the test. The remaining horses of the troop, 108 in number, were removed from their stable and quarantined in a plaza one mile away, guarded by sentinels to prevent approach of soldiers and Filipinos. The internal temperatures taken before injection were nearly all 101° F., which by later extensive comparative tests on other horses proved to be the normal temperature in the Tropics.

The result of the first mallein test was as follows: 29 horses reacted in all; of these, 23 horses reacted with a rise of temperature of about 2 degrees (between $103-104$); they developed the painful, local swelling at the point of injection, and were visibly affected in their general well-being, but regained their normal temperature in about 24 hours. Six horses had uncertain reaction; one as high as 107° F., while one other horse (No. 105) dropped as low as 99° F. These six horses evinced the severest external symptoms of reaction in numerous ways, and horse No. 105 developed on the third day after injection cord-like swellings of the lymphatics of both hind legs. All these 29 horses were immediately removed from the other troop horses, and especially quarantined in a yard enclosed by an eight-foot high stone wall, the six horses reacting so severely being isolated by themselves. Five of them developed clinical symptoms of nasal glanders within 6 to 9 days respectively after injection, and one horse (No. 105) farcy within three days. They were all destroyed.

In the meantime the original troop-stable had been thoroughly disinfected. The earth of the stable-floor was removed to a depth of about five inches; the centre bamboo-posts holding the roof were replaced by new posts, the other posts, not so exposed to infection, were scraped with sharp Filipino bolos and washed with a strong solution of carbolic acid. There were no mangers, as the horses were fed from the ground on the picket-line stretched in the centre of the stable. New earth was used to fill up the stable-floor. The work of disinfection, although vigorously pushed, had taken ten days, and when finished the 79 horses which had not reacted to the mallein test were again placed in the stable and put to regular service.

The second mallein test upon the 23 horses remaining alive

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in quarantine was scheduled to be made within four weeks, but the ordered mallein did not arrive until March 26, 1901, nearly two months after the first test. This second test had the following result: Seven (7) horses showed no reaction, and were returned to their troop for duty; thirteen (13) horses reacted with 2 to 3 degrees F., and were slightly affected by the mallein injection. One horse developed nasal glanders on the 7th day, and two horses came down with farcy respectively on the 3rd and 5th day. These three horses were destroyed on April 3, 1901, while the 13 horses which had shown ordinary reaction and had regained their normal temperature, were retained in quarantine to be subjected to a third test.

This could not be undertaken until May 24, 1901, seven weeks after the second test, when again fresh mallein arrived. The result of the third test was as follows: Eight horses no longer responded to the test, and were returned to their troop for duty; five horses responded with a rise in temperature of 1 to 2 degrees F., and, although they otherwise showed little or no disturbance in their general appearance, it was considered safer to subject them to a fourth test.

This was made on June 24, 1901, when the horses "ceased to react," and were returned to their troop for duty.

Summary result of the test:

Number of horses in injected Troop: 108.

Jan. 25, 1901. Proven healthy by first mallein test	79
Proven infected " " " "	23
Destroyed for glanders or farcy	6
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	108

Number of horses in Quarantine: 23.

March 26, 1901. Proven healthy by second mallein test . . .	7
Proven still infected by " " " . . .	13
Destroyed for glanders or farcy	3
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	23

Number of horses in Quarantine: 13.

May 24, 1901. Proven healthy by third mallein test	8
Proven still infected by " " "	5
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	13

Number of horses in Quarantine: 5.

June 24, 1901. Proven healthy by fourth mallein test	5
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(To be continued.)

DR. SERVICE'S APPLICATION FOR RETIREMENT.—The petition of Veterinarian S. W. Service, 10th cavalry, for retirement has been commended by the officers who have forwarded it to Washington. It was transmitted to Congress by the Secretary of War with the following explanatory report: "War Department, Office of the Chief of Staff, Washington, February 15, 1904. Sir: I have the honor to submit herewith the petition of Dr. Samuel W. Service, veterinarian, 10th United States cavalry, "to be retired under such provisions as may be meet and proper for and on account of long and faithful service, and on account of old age." He also asks that he may be placed upon the retired list of lieutenants in the Army. *I can not recommend legislation establishing a precedent for placing on the retired list of commissioned officers of the Army persons who never held commissions therein*, but I think that the record of Dr. Service entitles him to consideration at the hands of the government, and I therefore inclose draft of a bill providing for his retirement from active service with pay at the rate of \$65 per month. He served for a time during the civil war in a Michigan regiment of volunteers, and has served continuously as a veterinary surgeon *since July 4, 1871*. He has now the pay and allowances of a second lieutenant of cavalry, *but not the rank*. The rate of pay suggested is less than half he now receives. He is over 70 years of age and has become unfit for active service, both on account of age and failing eyesight, and will necessarily have to be discharged as unfit for further duty. I regard the special legislation recommended *as only a fitting recognition of this man's long service*, and if enacted it will afford a modest provision for him during the few remaining years of his old age. If he had been given the rank as well as the pay and allowances of a second lieutenant of cavalry, he would be entitled to retirement on 75 per cent. of the pay of that grade, which would be a considerably larger sum than is given in the bill submitted. Very respectfully, ADNA R. CHAFFEE, *Lieutenant General, Chief of Staff*."

"THE war question is a very grave element here in the Far East, and we are looking forward to a chance to go to China. All are eager to go, since it would break the monotony of garrison duty, which gets very tiresome here in the Philippines. At present there are no widespread epizootics of man or animals."—(Charles H. Jewell, Vet. 13th Cavalry, Manila, P. I.)

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COLLEGE COMMENCEMENTS.

KANSAS CITY VETERINARY COLLEGE.

The thirteenth annual commencement exercises of the Kansas City Veterinary College were held in the college auditorium on Tuesday evening, March 15th. The music for the occasion was furnished entirely by the students and their friends. The faculty address, given by the Hon. A. B. Duncan, of St. Joseph, Missouri, was a happy one in many particulars. His manner of presentation was pleasing, the verbal illustration quite to the point, and the words of encouragement to the veterinarian were strong. The large number of ladies in attendance was indicative of the esteem in which the gentler sex held the profession into which the graduates were ushered on this occasion.

The degree of Doctor of Veterinary Science was conferred upon the following:—Alfred L. Bailey, Jesse C. Bowman, Larkin S. Campbell, Fred Cater, B. Carl Davis, Robert Dill, Otis H. Downs, John Eagle, Charles Eastman, Abraham J. Farley, George M. Fox, William A. Fry, Guy C. Furnish, Marvin Gregory, L. Charles Henderson, William J. Hossley, Logan B. Buff, Fred E. Johnson, Thomas A. Jones, Albert T. Kinsley, Adam T. Knowles, William B. McAlester, Hugh M. McConnell, Walter C. McPherson, Thomas A. Mabie, Clarence D. Meredith, Ahijah J. Munn, Orrin W. Noyes, Will R. O'Neal, Marlain A. Peck, Sanford A. Peck, Sterling M. Reagan, Maurice D. Strong, Zachary Veldhuis, D. V. S., Spencer E. Watkins, William W. Wilson, Clarence J. Young, Henry C. Babcock, V. S. M. D.

Certificates of proficiency were granted to the following as evidence of completion of the special course given by this college:—Frank T. Allen, D. V. S.; Edward T. Frank, M. D. C.; Wm. J. Guilfoil, D. V. S.; John G. Veldhuis, M. D.; Walter Warren, V. S.

The following is the programme of commencement exercises: Invocation, Rev. Jas. M. Cromer; Piano Solo, Fifth Nocturne, Miss Stella Ruth; Song, Selected, Dr. F. W. Weston; Faculty Address, Hon. A. B. Duncan; Presentation of Diplomas, Dr. R. C. Moore; Class Response, Dr. Orrin W. Noyes; Song, Mr. T. Byron Cracroft; Song, Dr. R. Fred Eagle; Piano Duet, Mignon, Misses Della Kahn, Belle Stewart.

McKILLIP VETERINARY COLLEGE.

The annual commencement exercises of this school were

held March 25th in Handel Hall, Chicago, Ill., President Mc-Killip conferring the degrees and Dr. W. A. Evans delivering the address of the evening. The programme included addresses from several members of the graduating class, interspersed with music. A class of twenty-eight received their degrees, the largest in the history of the college. Following the exercises was a banquet at the Sherman House, given in honor of the Class of 1904, Prof. W. S. Harpole acting as toastmaster. Among those responding to toasts were Prof. E. M. Reading, Dr. H. M. Schultz, C. F. Colson and J. F. Howes. A very profitable and enjoyable evening was passed by the large number present, and the faculty was highly elated at the successful closing of the most successful year in the history of the college. Not only was the attendance the largest, but the quality of the students has been far above the average. While these exercises virtually closed the college year, the night school still continues until some time in June, the college having established a night school last year, where the first two years' work of the course may be done in the evening, the last year in the day course.

INDIANA VETERINARY COLLEGE.

At the closing exercises of this college, which took place March 31, in the auditorium of the German House, Indianapolis, Indiana, there was a large attendance of the friends of the college and graduates, and an excellent programme was rendered, consisting of music and addresses, that by President George H. Roberts being specially well appreciated by the class and audience. The following twenty-four gentlemen received diplomas: August Henry Albershardt and Harry Daniel Albersmeier, Indianapolis; Charles William Black, Judson, Ind.; Oscar Milo Catey, Carlos City, Ind.; Jarvis Scally Crabtree, Paris, Ill.; Lawrence Claton Daughtrey, Van Buren, Ind.; George Clem Emick, Linn Grove, Ind.; Jonathan Elsworth Gibson, Jamestown, Ind.; John Rudolph Lair, Connersville, Ind.; Ernest Layne, Crown City, O.; Paul S. Lindley, Paoli, Ind.; Daniel R. Leap, Sharpsville, Ind.; Austin Emory Martin, Nelsonville, O.; Alexander Lincoln Marvel, Owensville, Ind.; Charles Edward Nierste, Sandborn, Ind.; Ziba Allen Redding, Delphi, Ind.; Charles Walter Secoy, Athens, O.; William Arthur Scott, Baxter Springs, Kan.; Samuel Springer, Hunters, Ind.; Albert Wynne Stubbs, Indianapolis; William Asa Skinner, Indianapolis; Loarn Clark Rider, Kenton, O.; Dewey Elliott Westmorland, Pennville, Ind.

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ONTARIO VETERINARY COLLEGE.

The closing exercises of this college took place March 31, at the college building, Toronto, Ontario, when addresses were made by the Lieutenant-Governor, Principal Smith, and others. The gold medal offered by the Ontario Veterinary Association was awarded to Theodore A. Girling, of Manitoba. Diplomas were awarded to the following: Irving S. Alford, Sibley, Ill.; Jed. Badgley, Tampico, Ill.; Trueman Bailey, Rosemont, Ont.; Ernest A. Beavers, Perrysville, Ohio; Lester D. Bettinger, Chittenango, N. Y.; James A. Black, Chesley; Charles L. Boissiere, Port of Spain, Trinidad; George R. Brewster, Sunderland; Linus W. Burr, Cameron, Mo.; Duncan C. Bell, Portage la Prairie; Absalom B. Campbell, Fergus; Fred. T. Cheney, Lindsay, N. B.; Fred. F. Consaul, Buffalo, N. Y.; Wm. A. Coyner, Staunton, Va.; Leroy L. Cress, Clinton, Mo.; George A. Cunningham, Brussels; Alexander Currie, Elmvale; A. R. Colman, jun., Jarvis; J. P. Chisholm, Lisbon, N. Dak.; Charles C. Dauber, Attica, N. Y.; Richard W. Deats, Bardstown, Ky.; John A. Dilley, Aledo, Ill.; Robert R. Donaldson, Argyle, Minn.; Wilbert S. Eddy, Dubuque, Iowa; George D. Fisher, Grandin, N. Dak.; J. Williamson Frank, Victoria, B. C.; Theodore A. Girling, Wawanesa; Charles W. Grantham, Ladoga, Ind.; Ralph C. Harris, Jackson, Mich.; Archibald Howden, Lewiston Junction, Maine; George A. Johnston, Lexington, Neb.; Herbert R. Jones, Newburg, N. Y.; Chas. J. Korinck, Cottage Grove, Oregon; Theodore F. Krey, Brooklyn, N. Y.; E. G. Lathrop, Weston, Ohio; Andrew A. Lockhart, Rapid City, Man.; Ira B. Ludington, Holley, N. Y.; Daniel A. McArthur, Lauder, Man.; Clarence L. McConkey, Tedrow, Ohio; Clarence McDowell, Watertown, S. Dak.; Robert McKenzie, Jarvis; Henry E. Maguire, Waterloo, P. Q.; Alex. M. Mair, Seagrave; Harvey G. Malloy, Benmiller; Walter Martin, Pocohontas, Mo.; Chas. C. Mix, New Berlin, N. Y.; Albert A. Munn, Cambridge, Neb.; Samuel Murray, Dauphin; Samuel T. P. Nichol, Virden; Fred. D. Orr, Caro, Mich.; Edwin J. Peck, Buffalo, N. Y.; Clark A. Philps, Wallaceburg; Olaf J. Reed, Lion's Head; Samuel Robinson, Brandon; Thomas Scrivener, Edgeley; A. B. Sexsmith, Sidney, N. Y.; Ashley C. Spencer, Fowlerville, Mich.; Curtis J. Spring, Millersberg, Ohio; William P. Stuart, Rapid City; William Symes, Hutchinson, Kansas; Richmond Tiedt, Argyle, Minn.; Andrew M. Van Cleaf, Bloomfield; William W. Warnock, Aledo, Ill.; Clinton B. Weagly, Cavetown, Maryland; Oral W. Winters, Arthur, Ill.; T. Z. Woods, Winnipeg; Albert L. Wright, Columbus, Wis.; W. Wade Zirkle, Forestville, Va.

NEW JERSEY LEGISLATIVE NEWS.

We are indebted to the Chairman of the Legislative Committee of the Veterinary Medical Association of New Jersey for the subjoined items of news from the New Jersey halls of legislation. Bills, as follows, of interest and concern to the veterinary profession have passed both houses of the New Jersey Legislature, been approved by the Governor and are placed upon the statute books of that State:—

Senate No. 56, An Act to regulate the sale of cocaine in any form: "No person shall sell, furnish or give away any cocaine, or any patent or proprietary remedy containing cocaine, except upon the prescription of a registered practicing physician, or of a dentist, or of a *veterinarian*; nor shall any such prescription be refilled; nor shall any physician, dentist or *veterinarian* prescribe cocaine, or any patent or proprietary remedy containing cocaine, for any person known to such physician, dentist or *veterinarian* to be an habitual user of cocaine." Penalty, fine not more than \$100, or imprisonment for three months, or both at the discretion of the court.

Assembly No. 267 makes it unlawful to offer for public sale any maimed, sick, diseased, infirm or disabled animal, or any animal incapacitated for use by old age. Penalty, fine not exceeding \$100 and costs.

Senate No. 178 provides that whenever any person shall keep cows for the production of milk in a crowded or unhealthy place or condition, or feed any cows kept for the production of milk, on swill or any substance in a state of putrefaction or rottenness, or on any substance of an unwholesome nature, or on any substance that may produce disease or unwholesome milk; or who shall sell or distribute, or offer to sell or distribute, or have in possession with intent to sell or distribute any milk which is the produce of cows so kept or fed, then it shall be lawful for the State Board of Health to file a bill in the Court of Chancery in the name of the State, on the relation of such board, for an injunction to prohibit the keeping of cows for the production of milk in such crowded or unhealthy place or condition, or the feeding of cows on swill or any substance in a state of putrefaction or rottenness, or any substance of an unwholesome nature, or on any food or substance that may produce disease or unwholesome milk, or the continuance of the sale, distribution or transportation of milk so kept, as the case

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may be, and for such other or further relief in the premises as the Court of Chancery shall deem proper.

Senate No. 143 authorizes governing bodies of municipalities to regulate or prohibit the distribution of sample packages of medicines or preparations represented to cure ailments or diseases of the body or mind. Penalty, \$50 fine.

Assembly No. 298 gives power to the Board of Health of any municipality to designate from among its sanitary inspectors one or more inspectors who shall be known as inspector or inspectors of foods and drugs of such municipality, and whose duties shall be, besides the duties of a sanitary inspector in such municipality, to aid in the enforcement of an act entitled "An Act to secure the purity of foods, beverages, confectionery, condiments, drugs and medicines, and to prevent deception in the distribution and sales thereof," approved March 21, 1901.

Senate No. 16 is an act providing for a publication setting forth the industrial and agricultural advantages of the State of New Jersey.

From the foregoing and from other information at hand, it is evident that the Veterinary Medical Association of New Jersey through its Committee on Legislation, is a factor that has to be reckoned with at Trenton. There is a lesson in this that might well be learned by the profession in a number of other States.

CORRESPONDENCE.

NASO-CESOPHAGEAL INTUBATION DESCRIBED BY DR. GRIBBLE
IN 1890.

WASHINGTON C. H., OHIO, April 12, 1904.

Editors American Veterinary Review:

DEAR SIRS:—In your issue for March (which I was somewhat late in reading) I noticed that Dr. Geo. W. Pope had demonstrated naso-cesophageal intubation before the Passaic County Veterinary Association; and also a letter from Dr. J. M. Phillips in reference to the same operation, and its demonstration at certain veterinary colleges. While these demonstrations were recent, and the language used by these gentlemen, especially one of them, such as to lead one to presume that the operation is new, allow me to say that, in the blissful ignorance of my early practice, naso-cesophageal intubation presented itself to me when the occasion seemed to demand it, without any

special effort or forethought (simply an easy way to reach the stomach), and I had presumed it occurred to all others the same. This, and its simplicity, were sufficient explanation as to why it had never been shown by my *alma mater*; but, now that the matter has been called to my attention, I cannot recollect having even heard it talked about there. In Vol. XIV. of the AMERICAN VETERINARY REVIEW you will find that July 16, 1890, nearly fourteen years ago, I read a paper before the Ohio State Veterinary Association, describing a treatment for thoracic choke with water, injection syringe and a long small rubber tube. The method of using the water and syringe I fully explained, but wrote of passing the tube just as one would any operation he presumed his hearers knew all about.

The discussion started *pro* and *con* as to the dangers and difficulties of using the probang, until one asked how it was possible to pass such a long, limber tube into a struggling horse's throat without its being chewed up. This led me to say, that I passed it through the nostrils, and described how. If right-handed stand to the right of the horse's head, and, with left hand, lift the nose as high as possible, slowly and carefully passing the tube up the right nostril. Horses rarely fight much against it; one can do it alone. I explained its ease and benefits in stomach bloating, etc.; in fact was quite enthusiastic. The discussion, however, was very limited, in fact dull, due, I then thought, to my having selected an almost threadbare subject; but, in the light of the March REVIEW, and remembering that this paper was fourteen years ago, I now feel sure that the apparent lack of interest was kind charity: none of my hearers had performed the operation themselves, neither did they believe the new member telling about it ever had. The tube I then used was common three-eighths white rubber, with the rounded end of a catheter fitted to it; since then, I have one exactly like a male (equine) catheter, linen, only so very much longer; this, placed in warm water a few moments, is ready for use.

WM. H. GRIBBLE.

INTRAVENOUS INJECTIONS OF NORMAL SALT SOLUTION IN PURPURA HÆMORRHAGICA.

ST. LOUIS, MO., March 21, 1904.

Editors American Veterinary Review:

DEAR SIRS:—I wish to call the attention of the profession to the treatment of purpura hæmorrhagica by the intravenous

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injection of a normal saline solution. This form of treatment may not be new to some, but as it is not mentioned in our textbooks, and has given unusually good results in my practice for several years, it may be of sufficient interest to cause others to give it a trial.

I will not enter into a discussion as to its physiological actions, but leave it to others more fitted to delve into that part of the question.

The method of introduction that has proved simple is by an ordinary transfusion apparatus, using 80 grains sodium chloride and one quart distilled water. This is introduced into the jugular vein. In only two or three cases have I had to repeat it, and if so I wait until the second day. I also give turpentine, $\frac{3}{4}$ i, and raw linseed oil, Oi-ij. This in a majority of cases would be impossible to do in the old way.

I use the stomach tube (for which I claim to be the originator) and a funnel to carry it to the stomach with absolute safety, and very little distress to the patient.

Would be pleased to correspond with anyone needing more information, and would like to hear of results. I will say in conclusion that my recoveries were in less than one-half the time of previous treatment, the swellings disappearing in a few days.

Yours respectfully, H. B. PIATT, V. S.,
3618 North Ninth Street.

DR. WYMAN WANTS A TEST OF SWINE FEVER ANTITOXIN.

PROSPECT, OHIO, APRIL 20, 1904.

Editors American Veterinary Review:

DEAR SIRS:—A few months ago you kindly granted me space in discussing Bulletin 41 of the Bureau of Animal Industry. I also appealed to the American Veterinary Medical Association, asking them to make a public test as regards the virtues or inefficiency of the De Vaux antitoxin. So far my plea has brought negative results. Since the meeting of the national body of veterinarians takes place at St. Louis, it seems to me that it would be the proper place for such a test. All veterinarians are either directly or indirectly interested in preventive measures as regards swine fever, and an exhaustive test is called for. The latest publication of the Bureau of Animal Industry in regard to swine fever is, no doubt, taxing the powers of deglutition of a great many. Profs. Moore, Peters, Reynolds, and others could suggest the details of such a test. Would not these gentlemen sacrifice some of their time to outline a test through the REVIEW?

W. E. A. WYMAN.

BIBLIOGRAPHY.

TREATISE OF TOPOGRAPHICAL ANATOMY OF DOMESTIC ANIMALS. (Trattato di anatomia topografica dei mammiferi domestica). By Prof. Teresio Mongiardino, of the Veterinary School of Turino.

The necessity of a thorough knowledge of surgical anatomy is well known, and on that account any work on the subject properly presented will also be welcome. It is therefore with this feeling that we must accept the treatise of Dr. Mongiardino, which is well written and well presented to impress the reader.

Covering some 320 pages of reading material, it is illustrated by a number of plates, several of which are colored. These are probably not as correct as the anatomist would wish them, and if my memory serves me right are reproductions of those which I believe are found in the work of Seisering. But with that exception the author deserves compliments for the manner in which he has divided his work.

The whole subject is divided into chapters—head, neck, trunk and extremities; each of these is divided into regions and into sub-regions when they are too extensive or complicated. Each of the regions or sub-regions is then taken up and studied under a uniform plan, taking the horse as type; the same condition being afterwards considered for the other domestic animals in a rather short manner. The index of the plates is rather a good addition to the work.

A. L.

MALADIE DU COIT IN IOWA.—*Webster City, Iowa, March 25.*—Dr. Paul O. Koto, State Veterinarian of Des Moines, has discovered an outbreak of maladie du coit among the horses in Van Buren County. The disease was reported from near Birmingham. Members of the State Board of Veterinarians examined the animals afflicted and pronounced them clearly affected with the maladie du coit. Dr. Koto says the symptoms are unmistakable. While there is no disguising the danger in the outbreak of the disease, Dr. Koto and his staff believe it will be stamped out by the State and national authorities without jeopardizing the horse industry of Iowa if prompt attention is given it. The national authorities, however, will have to lend their aid if this be done, as the State is handicapped for want of funds and the disease is a most dangerous one, not only to Iowa, but to the whole of the horse raising district of the country. Dr. Koto has written the Bureau of Animal Industry in Washington reciting the circumstances.—(*Chicago Herald.*)

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SOCIETY MEETINGS.

PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.*

The annual meeting was held in Room C, Odd Fellows' Temple, Philadelphia, March 8 and 9. The first day's session was called to order at 10 A. M. by President E. M. Ranck, who came on from his new home in Natchez, Miss., for the purpose of fulfilling his obligations to the Association. Dispensing with the reading of the minutes of the previous meeting and the roll-call, the President announced that he would deliver his address later in the meeting.

The election of officers for the ensuing year was taken up and the Chair appointed Drs. Pearson, Hoskins and Ridge to nominate candidates for the various offices. This committee placed in nomination for President, Drs. Charles T. Goentner, F. F. Hoffman and Otto Noack. For Vice-Presidents (three to be chosen), Drs. J. D. Houldsworth, Thomas B. Raynor, F. F. Hoffman, H. P. Jackson, J. B. Irons and A. O. Cawley. For Corresponding Secretary, Dr. C. J. Marshall. For Recording Secretary, Dr. B. T. Woodward. For Treasurer, Dr. Francis Bridge. For Board of Trustees (five to be chosen), J. C. McNeil, H. B. Cox, A. W. Weir, Jacob Helmer, Leonard Pearson, Wm. H. Ridge, W. Horace Hoskins and W. L. Rhoads. The result of the balloting showed the following to have been elected:

President—Dr. Otto G. Noack.

Vice-Presidents—Dr. Thomas B. Raynor.

—Dr. J. B. Irons.

—Dr. H. P. Jackson.

Corresponding Secretary—Dr. C. J. Marshall.

Recording Secretary—Dr. B. T. Woodward.

Treasurer—Dr. Francis Bridge.

Board of Trustees—Drs. Leonard Pearson, J. C. McNeil, W. Horace Hoskins, Wm. H. Ridge and Jacob Helmer.

Applications for membership were offered by Drs. John W. Montague and A. J. McCloskey, and they were unanimously elected.

The Secretary submitted his report, which was replete with sound suggestions and accurate data. This was referred to the Trustees to consider the suggestions.

* Summarized from the stenographer's notes of the proceedings by Roscoe R. Bell.

The H. K. Mulford Co. forwarded an invitation to the members to visit their antitoxin and vaccine plant at Glenolden.

Letters were read from Drs. James B. Raynor, of West Chester, and H. B. Felton, former Recording Secretary, who was forced to remove to Colorado on account of the ill-health of his wife.

An invitation from Mr. Gill, of Haddonfield, N. J., to visit his model farm, where a first-class dairy of Guernsey cows is maintained, was read.

The reports of delegates to various associations were called for.

Dr. Hoskins, delegate to the American Veterinary Medical Association, gave a lengthy description of the Ottawa meeting, paying a high tribute to the hospitality of the Canadian veterinarians, the officials of the city of Ottawa, and the people of the Dominion in general, concluding that from every point of view it was the largest, most valuable and representative gathering of veterinarians ever held on the Continent.

Dr. Pearson reported that he had attended the New Jersey State Association meeting at Trenton, and that it was a very successful and valuable one, there being a number of prominent State officials present, who took an active part in the deliberations; that the programme was very full; so full, in fact, that it left no time for discussions.

No delegate had attended the annual meeting of the New York State Veterinary Medical Society.

Dr. Bridge reported that his attendance upon the Keystone Association meetings convinced him that it was doing good work, and that the special milk meeting recently held, while not so generally attended by invited physicians and other outside interested gentlemen, was nevertheless successful as an entering wedge.

Dr. Otto G. Noack reported that the Schuylkill Valley Association is working hard with a small-membership, and urged a better attendance of delegates from the State and other associations.

Dr. McGee and Dr. McNeil reported that the Western Pennsylvania Association was progressing nicely for a young organization.

At 1.10 P. M. the Association adjourned until 7 in the evening, many of the members accepting the invitation to visit the Haddon Farm, where they were much interested in the fine cat-

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tle and Mr. Gill's methods of producing and handling certified milk.

The evening was devoted to a banquet given by the members in honor of Dr. D. E. Salmon, Chief of the Bureau of Animal Industry. About 75 were in attendance, and the evening was pleasantly spent.

Second Day.—President Ranck called the meeting to order at 10.20, and introduced Drs. Roscoe R. Bell, President of the A. V. M. A., and E. B. Ackerman, Veterinarian to the Department of Health, of Brooklyn, N. Y., each of whom graciously acknowledged the courtesy extended to them.

Dr. Ridge, from the Committee on Legislation, had nothing to report, and the Treasurer was not present to respond when his report was called for. The Army Legislation Committee and the Committee on Sanitary Science and Police were not ready to report when called upon.

Dr. Woodward, Chairman of the Committee on Intelligence and Education, rendered a carefully prepared report, dealing principally with a comparison of the various veterinary colleges of America, showing the great variance in the length of the courses and the subjects taught. Dr. Noack offered his report from the same committee, paying tributes to two distinguished foreign veterinarians who have recently died (Nocard and Dieckerhoff). He further reviewed the experiments being conducted by Von Behring in Europe and Pearson in Pennsylvania to immunize cattle against tuberculosis. He also gave his impressions of the Ottawa meeting of the A. V. M. A., chiefly the valuable section of the programme carried out at Pine Grove Farm. He thought that this country should handsomely support ten monthly journals, instead of one, as at present.

One of the most elaborate and best reports we have ever listened to was that of Chairman S. J. J. Harger, of the Committee on Animal Husbandry. It was quite lengthy, filled full of intensely interesting and instructive facts, and engaged the closest attention of every one present. The REVIEW earnestly hopes that it may have the privilege of publishing it in full. We will not therefore attempt to synopsise it.

It was discussed at considerable length by Hon. M. B. Critchfield, Secretary of the State Board of Agriculture, who gave an interesting talk on various phases of animal husbandry. Dr. Jobson went into a discussion of the breeds of cattle, and Dr. Harger showed his great familiarity with his subject by entering into the details of Dr. Jobson's contention. Dr. Bell was called

upon to give his experience with the feeding of molasses to horses, as the subject was referred to in Dr. Harger's report. He gave a history of the utilization of this product as a food for animals, and the wonderful results which have been accomplished through it in New York and Brooklyn, especially its effects as a dietetic in horses affected with indigestion, and referred to its beneficial effects in horses suffering from heaves. He also thought that it did much in preventing attacks of azoturia, though his observations along this line had not been sufficiently extensive to permit of a statement to that effect. He asked those present to note the frequency or infrequency of azoturia in stables feeding molasses to their horses.

Dr. M. E. Conard reported verbally for the Committee of Milk Inspection that the public is recognizing the necessity of systematic inspection, but that before sufficiently high standards can be established and enforced it is necessary to educate both the producer and the consumer, and this can best be done by veterinarians. Dr. George B. Jobson also reported verbally, giving a history of milk inspection in Oil City.

The Committee on Meat Inspection failed to report, as did also the Committees on Sanitary Science and Police and Army Legislation.

Reports were read by Secretaries from the following counties: Adams, Beaver, Crawford, Lebanon, Luzerne, Schuylkill and Washington, while verbal reports were made for Chester, Fayette, Venango and Wyoming Counties.

The Treasurer's report showed the finances of the Association in a very flourishing condition.

Adjournment for luncheon at 1.20 P. M.

Afternoon Session, Second Day.—Called to order at 2.20 P. M. Dr. M. Moriarity presented a specimen of osteoporosis in a pony filly. Dr. Wm. Dougherty, of Baltimore, Md., was called upon as one who had made a study of this disease, and he gave considerable data to prove that fertilizers are largely responsible in the production of the affection, particularly where horses are pastured on fertilized land. Dr. Kooker instanced a carload of horses that came from a section of the West where fertilizers are never used, and in six years more than three-fourths of them were dead of osteoporosis. Dr. Eves spoke of its great prevalence in his practice, and told of a certain brewery stable losing a great many horses, and that the feed was purchased any and everywhere. Finally they isolated the diseased from the healthy ones. Dr. Mahaffy, who has charge of that

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stable now, said that by following up that plan with even suspicious cases the disease has been gotten rid of. Dr. Pearson is of decided opinion that osteoporosis is an infectious disease, and he gave credit to Dr. J. C. McNeil, of Pittsburgh, as the first man he had known to propound this theory. Dr. Hoskins cited an instance confirmatory of the infectiousness of the disease. Dr. Schrieber also supported this theory with clinical facts. Dr. Conard told of osteoporotic horses sent from the city to a region where much fertilizer is used and the animals recovered. Secretary Critchfield asked if fertilizers made from the bones of animals dead of osteoporosis and other infectious diseases might not possess active properties in disseminating the diseases. Dr. Eves replied that in manufacturing the fertilizers the bones were put through such a process of boiling that would effectually destroy all infection. Dr. Pearson supported this contention, and described German processes of utilizing the carcasses of animals affected with infectious diseases.

Dr. W. H. Ridge then presented his paper on "The Treatment of Parturient Paresis," which will be found in full elsewhere in this number of the REVIEW. It was discussed by Drs. Pearson, Butterfield and Neale. The suggestion of Dr. Neale is an especially important one as explanatory of the excellent results obtained from the injection of oxygen into the udder. The Doctor suggested that the germ proliferating the toxine in the udder is an anaërobe, and that the inflation of the organ with oxygen effectually destroys it. Dr. Pearson thought this the probable explanation of the remarkable results obtained.

Dr. H. D. Martien exhibited a collie dog owned by him which possessed two penises, two bladders and two tails. Dr. Harger gave an interesting talk on the monstrosity, especially as to its early embryonal development.

Dr. E. Stanton Muir read a paper upon "Tallianine," narrating some wonderful results obtained from this new drug in the treatment of various lung and septic diseases. It was discussed by Drs. Bell and Ackerman.

Dr. Hurley, a delegate from the Veterinary Medical Association of New Jersey, was recognized by the Chair, and tendered the courtesies of the floor, acknowledging which the Doctor spoke in enthusiastic terms of his own association and the advantages of interattendance with the two bodies. He also referred to the subject of osteoporosis and agreed with the former speakers as to its infectious nature.

Dr. John W. Adams then gave an interesting and instruc-

tive address on "Contractures of Joints of Horses' Legs," which was replete with sound conclusions and practical information.

The hour being late Dr. Leonard Pearson asked that he be permitted to drop his announced subject of glanders in order that he might say something about a commission which the Governor of Pennsylvania has recently appointed to formulate rules and regulations governing the disposition of the carcasses of tuberculous animals. Under the rules of the State Live Stock Sanitary Board and the Federal Bureau of Animal Industry the custom has been to condemn and destroy the carcasses of those animals which were affected with generalized or extensive tuberculosis; but no definition of these terms exists in the regulations, so that there is nothing to guide inspectors as to where to draw the line between the two conditions. The Commission, which is composed of sanitarians, pathologists, bacteriologists and veterinarians, has already held an organization meeting at Harrisburg, and have formed subcommittees to study the various phases of the question, and it is expected that when their work is completed it will be the most thorough and comprehensive exposition of the subject extant.

Chairman Pearson, of the Board of Trustees, then read their recommendations, which were acted upon *seriatim* and in accordance with their recommendations. They were as follows: That Dr. John J. Repp be transferred from the list of corresponding members to the list of active members; that two of the old members, who have been ill for a long time, have their dues remitted; that a number of members in arrears be notified that, unless their remittances be received within thirty days, they will be dropped from the roll; that Dr. J. M. Carter, of Philadelphia, and Dr. J. R. Mahaffy, of Wilmington, Del., be summoned before the board to answer charges of violation of the Code of Ethics; that the proposed change in the By-laws relative to election of officers be unfavorably considered, but in its place the Board of Censors shall each year submit a list of candidates for the several offices of the Association; that there be a resuscitation of the Association of State Veterinary Examining Boards, so that the question of more uniform laws and regulations of said boards, providing for interchangeable licenses, may be carried out; that, at our annual meetings, the officers of the American and all State Associations be invited to attend, that our work may take on a more advanced character so far as interstate questions of veterinary medicine are concerned; approving the action of the Governor in appointing a commission

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of sanitarians to formulate a code of rules for the guidance of meat inspectors in disposing of the carcasses of animals afflicted with tuberculosis; that \$20 be contributed by the Association to the Nocard Monument Fund; that \$100 be set aside for the publication of the proceedings of the Association annually.

Dr. Hoskins referred to the excellent work performed by Secretary Marshall during the past year, and its arduous character, and moved that \$50 be appropriated as a slight token of appreciation, which was unanimously carried. The Secretary modestly protested, but finally accepted the gift with thanks.

The Secretary repeated his request to the members to forward any duplicate magazine numbers which they might have, so that the files of the REVIEW and *Journal* could be completed and placed in the library of the new veterinary building of the University when completed.

Dr. Schreiber then caught the Chair's attention and said:

Mr. President and Gentlemen: The veterinarians of the State of Pennsylvania appreciate worth in a man. We have among us a man who, by his untiring zeal and energy, has done more to elevate the profession of veterinary medicine than any of his predecessors. His work has not only been recognized nationally but has achieved world-wide fame. Through his perseverance and honest scientific work many knotty problems have been solved for us. Several years ago it was our good fortune to see him elevated to the highest veterinary position in our State, since which time our profession is gradually assuming that high scientific plane which is bound to be the outcome when led by such an able leader. Never lagging, always onward, until now we have established in our State The State Live Stock Sanitary Board, whose rules and regulations make it possible to study disease which might be a menace to the well-being of the animals or to the human beings around them. Look back to the years past and compare them to what now exists. Every village and hamlet in our glorious State is now protected, from both a medical and commercial standpoint, through the great work of our leader, Dr. Leonard Pearson. Dr. Pearson, it is one of the pleasures of my life to be the mouth-piece of the veterinarians of our State, who present to you this slight token of their regard, firstly as a man, and secondly as our most able veterinarian.*

Dr. Pearson: Mr. President, I am sure I have never been so surprised in my life before. I feel so at loss for words to express my feelings, for I had not the slightest shadow of a

* A beautiful elaborate silver service.

thought that anything of this sort was to take place. If I had I do not know that I could have prepared anything to have said that would adequately express my appreciation. It has been a great pleasure to me to do the work that I have done as State Veterinarian and it has been a pleasure because it has brought me into such pleasant contact and such pleasant relations with my colleagues throughout the State. If anything has been accomplished in Pennsylvania that is at all notable in the way of repressing diseases of animals, it is due, not to any individual, but it is due to the united efforts of Pennsylvania veterinarians. It has always been a matter of pride to me that the veterinarians of Pennsylvania have acted as a solid body. There has always been the greatest unity and cordiality in the veterinary profession in this State. We have never had to lose any of our energy or any of our time in fighting each other. We have lost no influence by being divided into factions and so it is the whole profession of the State that deserves any credit that is to be bestowed. I don't know what you have there, but I am sure that it is very fine. (*Dr. Schreiber* : You might come over and look at it.)

Dr. Pearson : I shall always cherish it as a token of friendship and fellowship from my colleagues and I am sure that a man cannot be honored more than by those with whom he is in daily contact. I thank you very much, gentlemen, and I wish that I could better express my feelings at this time.

President : The next on the programme is to seat new officers. Dr. Noack is our coming President. He asked me to thank you for the honor conferred on him as he was unable to stay, having to take the 6 o'clock train for Reading.

I will ask the Vice-Presidents present to come forward.

President : I now declare the meeting of the Pennsylvania State Veterinary Medical Association adjourned.

AMERICAN VETERINARY MEDICAL ASSOCIATION.

Dr. Chester Miller, Chairman of the Committee of Arrangements for the St. Louis meeting of this Association, which takes place Aug. 16 to 19, has organized his committee by the selection of Dr. J. J. Brougham, B. A. I., as Secretary, and Dr. Crowley treasurer. The remainder of the local committee consists of Drs. W. F. Heyde, J. B. Clancy, Ray J. Stancliff, W. H. Meador, Joseph E. King, J. M. Watson, and R. A. Kammerer. A recent letter from Dr. Miller states that matters are shaping themselves for a splendid meeting, and we hope to be

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able to present our readers with an outline of the programme in the June number.

MICHIGAN STATE VETERINARY MEDICAL ASSOCIATION.

REPORT OF COMMITTEE ON INTELLIGENCE AND EDUCATION.

Mr. President and Gentlemen :

As Chairman of the Committee on Intelligence and Education, let me at this time ask your indulgence, let me seek your commiseration, let me offer an apology for any sins of omission or commission that I may be guilty of in making this report.

When President Gohn honored me with the chairmanship of this committee, I had a premonition or feeling that he expected me to do something. I thereupon resolved that I would do my best. How easy it is to make resolutions, and how prone we are to forget and neglect them. Dr. Gohn appointed as my colleagues on the committee, Drs. J. Drury and R. W. McDonald. I thought at the time, with those leading lights of the profession as my counselors and assistants, we could produce a good report—one that would surpass any report heretofore made, and, judging by the length and character of reports usually made to this Association on Intelligence and Education, that appeared easy at the time. I resolved further that I would make notes during the entire year of any subject or matters that might be of interest. Well, the months rolled by, and, while I occasionally thought of my resolution and of my duty to the Association, it ended in thinking. My mind was occupied in other ways, in the pursuit of the almighty dollar, wherewith to meet my obligations, which obligations are so strenuous in this hustling age of the world. The problem of how to keep the "wolf from the door" is evidently uppermost in many minds. But, gentlemen, there is a selfish side to our natures. There must be! Do we spend all our moments in pursuit of self? Do we spend all our days in administering to and alleviating the pains and diseased conditions of our dumb friends? It cannot be so, gentlemen, or else would not our coffers overflow? Still, how very much occupied veterinarians are, to hear them tell it! So busy, in fact, that they cannot spare a few days or even hours for the benefit and welfare of the Association, and through it the profession at large. Would we not be more entitled to commendation if we communicated the ripened results of our experiences

to our fellow practitioners? My conscience often pricks me when I read the quotation that always appears in the *AMERICAN VETERINARY REVIEW*, under the heading, "Reports of Cases." You have seen it. It reads thus: "Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science." I dread to think, gentlemen, how much I would miss the *REVIEW* in case it should cease to come. What a well spring of "Intelligence and Education" it is. It comes like a ray of sunshine into the too often cloudy atmosphere of our lives. The thought comes to me sometimes, that I may be a failure; that I am becoming a "has been." In this age of advancement, we must be up-to-date in our methods; we must be conversant with the new ideas, whether we apply them or not. Some of them are improvements on the old; others, I fear, are not.

Recreation has been another factor that may have affected my resolution in regard to this committee work. For the past twenty years I have devoted my time very assiduously to business, always hoping a time would come when I might indulge in or gratify my very great liking for hunting and fishing. So I have passed many pleasant hours and days at the trap, and on the water, trying to lure the wiley bass and other members of the finny tribe, and later on followed my faithful dog after quail and partridge, and still later on with hound, pursued the lively cotton-tail. This pastime has made life appear the more worth living. This, then, is the selfish side of my life—my recreation. But I feel that it is legitimate; that I am entitled to it. I do not expect to pass through this world but once. While I hunt and fish, other veterinarians may seek pleasures in a different way; and, while those pleasures are manly and legitimate, they are to be commended.

But, in addition to the business and pleasures of our lives, we should not forget the science or art by means of which we secure a livelihood.

While the knowledge we possess is the result of study, research and experience, what would we have done without the text-books and writings of veterinarians of by-gone days? Just think for a moment, if you please, of the stupendous works of Chauveau, Strangeway, Williams, Fleming, Dun, and others, and in our own country to-day we have men who are rearing monuments that will keep their memories green for ages to

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come. What a debt of gratitude we owe them, for what they have done, and are doing. I shall not name any of them for fear I might make invidious distinctions—men who are investigators, compilers of books, and contributors to our veterinary literature and journals, and, gentlemen, to what better fountain can we go, to what better source, to seek intelligence and education than the pages of our veterinary journals? To those of you who read them, I fear I can add but little of interest. But I wish we might hear more from Michigan veterinarians through their pages.

About four months since, I received a letter from Secretary Black, reminding me that I was chairman, and suggesting that I write my colleagues on the committee, and in a mild way ordered me to get a move on. He has been prodding at me pretty regularly ever since, and if all of you have heard from him as often as I have, with his other work, he must be a very busy man. I did write the other members of the committee. Dr. McDonald I have not heard from. Dr. Drury did reply, and I may refer to his letter later on. Perhaps if I had got after them as energetically as Secretary Black has followed me, I might have obtained better results.

You may be wondering what all this preamble has to do with a report on Intelligence and Education. Well, all I can say is that, believing myself to be naturally modest and backward, and perhaps somewhat contrary, and in order to be contrary to my predecessors as chairman of this committee, I feel that I must make up in quantity, even if the quality is below par.

As my colleagues have seen fit to maintain a comparative silence, I feel that I am the whole thing, and as I will never have a chance to be chairman of this committee again, I must say something while the chance is open. I will blow my horn while I have a chance.

That recalls to my mind a story I once heard about a man who had a sick jackass. He consulted a doctor, who advised him to get an ounce of red pepper. He was to put the pepper in a tube, put the tube well back in the patient's mouth and blow it down his throat. After the lapse of a few days the parties met and the doctor inquired about the sick jackass. The owner said he was not any better. "Why, that is strange," remarked the doctor, "are you sure you did as I directed you?" "Yes, sir, I did." "You got the pepper?" "Yes, sir." "You put it in the tube?" "Yes, sir." "And you put the tube well

back in his mouth?" "Yes, sir." "And did you blow it down his throat?" "No, sir, I did not," said the man, with tears in his eyes at the thought; "the jackass blew first." Moral: There may be advantage in speaking first.

I have not much to report in the line of intelligence; my sources of information have been limited. From what I can learn, the past year has proven a satisfactory one for the general practitioner. While the horse market perhaps does not compare favorably with the year previous, still it's in a healthy condition. An item in the November REVIEW says: "For the first time since 1892, the value of the horse stock of the United States is now estimated at more than one billion dollars." Notwithstanding the fact that bicycles, automobiles and electric street railways have come into the field, in the last few years, there are more horses than ever before and they are worth more money. The exact figures vouched for by the Secretary of Agriculture, are 16,557,373 horses, valued at \$1,030,705,959. It would seem from those figures that the occupation of the veterinarian will not suffer, at least for some time to come. The latest fad, the automobile, is said to be proving both unsatisfactory and prohibitively expensive for business purposes.

On the subject of education there appears to be a broader field, and more material for consideration and discussion. It is one of the important veterinary problems of the day. Higher veterinary education appears to be a popular theme.

Of American veterinary educational institutions we have the following:

1. Laval Veterinary College, Montreal, Canada.
2. New York-American Veterinary College, New York, N. Y.
3. New York State Veterinary College, Ithaca, N. Y.
4. University of Pennsylvania, Philadelphia, Pa.
5. United States Veterinary College, Washington, D. C.
6. Ohio State University, Columbus, Ohio.
7. Chicago Veterinary College, Chicago, Ill.
8. McKillip Veterinary College, Chicago, Ill.
9. Kansas City Veterinary College, Kansas City, Mo.
10. Iowa State College, Ames, Iowa.

Graduates of the above-named ten veterinary colleges, together with graduates of the now defunct Harvard and Montreal Colleges, are accepted as members of the A. V. M. A.

Other colleges are:

11. Ontario Veterinary College, Toronto, Canada.

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12. Grand Rapids Veterinary College, Grand Rapids, Mich.
13. Cincinnati Veterinary College, Cincinnati, Ohio.
14. Indianapolis Veterinary College, Indianapolis, Ind.
15. The Western Veterinary College, Kansas City, Mo.
16. Kansas University, Kansas City, Mo.
17. San Francisco Veterinary College, San Francisco, Cal.
18. Washington State University, Pullman, Washington.
19. Nashville University, Nashville, Tenn.
20. The Universal College, Any Old Place.

This, gentlemen, is the whole bunch, so far as I have been able to learn. You will perhaps appreciate the difficulty to be encountered in getting reliable information which is unfavorable to the various colleges, no matter how true it might be, or however much the schools may deserve to be criticised.

Dr. C. C. Lyford, in his very interesting report on colleges and education in the October REVIEW, says: "In looking over the catalogues from the various colleges one cannot help seeing that they are to a certain extent educators, as their covers, contents and general appearance can but have a certain moral effect on those who enter those colleges. The majority of them are tasty, nicely printed, well gotten up, indicative of character, while others are flashy, cheap, and horsey in appearance, giving one a pang rather than pleasure, and if they were devoid of covers, would be nearer in accord with professional ethics. Is it a wonder that some of our profession, tutored under such conditions, fail to realize that what was seemingly meant for an embellishment, lacks in dignity and quality?" Dr. Lyford says further, that "As a rule, our American veterinary colleges have improved greatly during the past few years, not only in their methods of teaching and length of course, as well as number of subjects taught, while in their clinical demonstrations and especially in operative surgery, many of our Western colleges seemingly are leading the Eastern ones." Dr. Lyford also speaks with regret of the closing of the doors of Harvard, and also that the Veterinary Department of the University of Pennsylvania, which was started on the most elaborate scale of any of our American schools and with a staff of well-qualified, energetic, hard-working men, and later on it was found necessary to take a backward step, the grounds and buildings being taken for other purposes, and in their stead apartments of less commodious proportions and grounds less suitable and quite limited have been made use of.

I am not prepared to comment intelligently as to the stand-

ing and condition of these various colleges, so have given you Dr. Lyford's views, which I doubt not are correct. I am pleased, though, to communicate to you the news that, though the Veterinary Department of the University of Pennsylvania is still in temporary quarters, it has purchased and paid for over an acre of ground, which cost \$45,000, near the centre of the city, and on the University grounds; that it has plans for a building equipment to far excel any other American school, and that the University authorities have pledged themselves to go on with the building in the near future.

To go a step further: I see Dr. Lyford says there are just three colleges at present which can properly be classed as two-year schools. These are the Toronto, Grand Rapids and Wattles, of Kansas City. Taking these three from the total of nineteen, leaves sixteen schools, said to be three-year schools. As I have stated before, only ten of those are recognized by the American Veterinary Medical Association, and I hear from good authority that three of those (the United States, McKillip's, and Iowa State Colleges) are on the ragged edge and really do not merit recognition. Still, again, I understand there are those who are well acquainted with the schools, who have strong feelings against the Ohio State University and the Kansas City Veterinary College. This, then, would leave us five colleges out of nineteen that are gilt-edged and worthy of recognition as per the standard set by the A. V. M. A. This appears to me as a rather astounding state of affairs.

But to show you that there may be more truth than poetry, more cause than you think of, that such a condition may exist, permit me to read to you some parts of President Stewart's address, at the Ottawa meeting of the A. V. M. A. last summer. [Reads from REVIEW, page 632, Vol. XXVII, Oct., '03.] This is surely from good authority, and you will observe that Doctor Stewart not only suggests, but urges very earnestly indeed that watch dogs (pardon the expression) be appointed to see that the various colleges, their managers and professors do as they should do, and as they claim in their announcements and catalogues that they do do. Again, as bearing on this question, I ask your permission to read an editorial criticism from the pen of Prof. Liantard, found in the last issue of the REVIEW. Thus: "The fortieth annual meeting of the A. V. M. A. was important from more than one point of view, and it is not in this chronicle that the many important parts can be brought out; yet there is one among the many which I think may escape attention, and to

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which I must refer, because of its connection with similar facts which have occupied the attention of veterinarians in Europe during the last few months. If one reads with care the excellent address of Ex-President Stewart, he will find a most interesting part relating to veterinary education, to veterinary colleges, their curricula, their requirements, the length of their courses, etc., all of which may be resumed in a few words of criticism and warning, viz.: Our colleges are much in need of improvement, and it becomes the Association to see that those improvements exist, not only in catalogues and announcements, but also in reality. Prof. Stewart has done well in sounding the bell of alarm. If one studies the announcements and catalogues of some of the veterinary schools of America, he certainly will find that those of this year are about the same as those of previous sessions. Improvements are much in need."

Ex-President Stewart said in his address, that there remains but one college where students attend in any considerable numbers which has not yet yielded to the good influence of this upward movement. I think he must refer to the Toronto College.

If you are not weary, I would again like to read to you from the October REVIEW, the report of a meeting of Canadian veterinary surgeons. [Reads from page 682.] The gist of this meeting, you see, is the old decrepit and worn thread-bare story of the O. V. C., and how it is to be made a three-year school. It resulted in a resolution being offered and passed as I have read to you. But what's the outcome to be? Is the committee that was appointed going to die the death that usually comes to such committees? Or will it bear fruit? Time, I suppose, will tell. Prof. Smith says he cannot do all this alone, as he would be handicapped by outside institutions. I am not sure in my own mind that Prof. Smith is not right. While for several years past we have all, individually and collectively, deplored the condition of affairs we find ourselves placed in, and have hurled anathemas without limit against Prof. Smith for his seeming stubbornness in not responding to the lash, and coming into line, can we conscientiously to-day, with the preponderance of evidence at hand in regard to the status of most of the other schools, blame him for the stand he has taken? I really believe that I admire his pluck. At Detroit four years ago, at the meeting of the A. V. M. A., I remember scoring the O. V. C. management pretty strongly—so strong, in fact, that Prof. Smith chided me for being so hard on my Old College;

but I did not know the situation then as I do to-day, and I say, with Dr. Rutherford, that "the O. V. C. as a teaching institution stands second to none in the English-speaking world," and there was no room for doubt that if its standard was raised to meet modern requirements, it would soon become the leading veterinary college on the American continent, for while it's a two-term school now, it is so in fact as well as name. If its course were extended to three terms, we may rest assured that it would be a three-year school in fact as well as name under the management of Prof. Smith, and not merely a blind to gain some point.

We, as an association, have a code of ethics that restrains our actions in various ways. May I not inquire, why this code should not apply to colleges, as well as individuals? To my mind, the Chicago, the Kansas City and the Grand Rapids Veterinary Schools should alike be condemned for getting out under the guise that it is a veterinary magazine a publication which is so plainly nothing but an advertisement for the school from which it is issued, and which is so careless in its use of the truth. If they really got out a creditable magazine and kept it free from such manifest and painful efforts at self advertising, there might be no objection. They call them "quarterly bulletins."

Then, again, take the new "Pictorial Cyclopaedia of Live Stock", edited by the Hon. Jonathan Periam and Dr. A. H. Baker, President of the Chicago Veterinary College.

Am I an old way-back grumbler, or are such things right and proper?

These things make me think of a new veterinary institution, which might be termed The Universal Veterinary College, granting such a degree as E. M. H. O. D., instructors being veterinary bulletins, farmers' institutes, live stock cyclopaedias, bureau of animal industry, etc., etc. To what is the veterinary profession coming?

WM. JOPLING, *Chairman.*

IOWA-NEBRASKA VETERINARY MEDICAL ASSOCIATION.

A very interesting meeting was held at Omaha, Neb., during the Ak-Sar-Ben week, October 7 and 8, and was called to order on October 7 at 4 o'clock P. M. The minutes of the previous meeting were read and approved.

The first paper called for was that of Dr. C. E. Stewart, of

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Chariton, Iowa, entitled "Vaccination for Influenza." The Doctor gave a very interesting talk relating his experience with the use of the pneumococcic serum. The Doctor believes that this serum has quite a preventive power and he recommended its use. This line of treatment is in its infancy and, judging from the discussion, it will be taken up and used more where valuable animals have been exposed to influenza. He stated that it should be used within 24 to 36 hours when the first symptoms of the disease appear.

Professor H. R. Smith, of the Nebraska Agricultural College, gave a very fine talk entitled "Fundamental Feeding." This was very much appreciated by all and brought out a very lengthy discussion.

Dr. H. E. Talbot, of Des Moines, Iowa, then read a paper as follows:

SOME INTERESTING CASES SEEN IN PRACTICE SINCE WE
LAST MET.

By Dr. H. E. TALBOT, Des Moines, Iowa.

Our worthy Secretary has assigned the above as my subject for this meeting, but I beg his indulgence and that of those here assembled if, before I have finished, I wander from the straight and narrow path laid out for me and say a few words upon that subject which is always uppermost in my thoughts, "Veterinary Legislation."

Upon the subject assigned me, however, I wish to make mention of a few rather unusual cases which have come under my observation and which may be of interest to you as something out of the ordinary.

Case No. I—Oleander Poisoning.—There was brought to my office June 10th, 1902, a bay gelding, four years old, with what seemed to be a very slight touch of colic, which readily yielded to treatment by the administration of Indian cannabis, one-half ounce, oleum lini, one pint. On more careful examination found all visible mucous membranes light colored; the Schneiderian and buccal membranes white in color. Pupils dilated; temperature slightly elevated; pulse small and very slow (twenty-five per minute). The animal seemed to be insensible to pain, capillary circulation poor. Puncturing the Schneiderian membrane with a pin would neither cause pain nor hæmorrhage. The animal was left in hospital until next day, no more treatment being given. On June 11th animal seemed insensible to pain and hearing; no appetite, temperature normal, pulse 28 per min-

ute, no intestinal murmur. On general examination would have been taken for a dummy. About one hour before the animal had been brought to the office he had eaten the leaves and branches from a large oleander plant. The treatment consisted of laxatives, stomach tonics and heart stimulants, relying principally on digitalis. The animal made a partial recovery and has been under my observation continually since that time. The horse, once a beautiful topky driver, is now a stumbling, worthless animal, and would still be taken for a dummy.

Case No. II—Rupture of Flexor Metatarsi Muscle.—Roan gelding, six years old, brought to hospital and reported to be suffering from a broken limb, which I knew was impossible from the fact that the animal had been driven ten miles; but on approaching him from a distance the left hind limb hung pendulous and had all the appearances of being fractured. There was extreme lameness and the limb was carried with flexion of the stifle joint and great extension of the hock. The limb could not be brought forward without assistance and the fact that the stifle and hock did not work in harmony would give the impression of a broken bone. The absence of a fracture was at once shown, as the limb would still support weight when brought forward. The accident occurred by violent kicking. The only treatment given was perfect quietude, hot applications over the region of the muscle twice daily, followed by camphorated liniment. Complete recovery in six weeks. This case at first caused me great anxiety, being unable to diagnose the lameness.

Case III—Paralysis of the Radial Nerve.—Black gelding, eight years old, brought to hospital for dental work. Was compelled to cast the animal, as he would not allow the mouth to be touched while standing. Struggled and fought the greater part of the time during the operation, and to my surprise got up with complete paralysis of the radial nerve of the right limb. He was unable to support weight at all, went down two or three times before discovering could not use limb. The limb takes the position of that of a very painful affection of the foot, the shoulder and elbow are both extended, while the joints below are flexed. The anterior wall of the foot will be in contact with the ground and the limb seems very much too long. In attempting to move, the shoulder and elbow can be brought forward, but unable to bring the rest of the leg into position, consequently cannot support the weight of the body, the limb collapsing at every effort to bear weight. Once seeing a case of

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radial paralysis, diagnosis of same becomes very easy. The treatment consisted of perfect rest only, as treatment of a former case proved to be of no avail. Perfect quietude being all that was necessary, recovery was complete in eight weeks.

Case No. IV—Pericarditis (due to fracture of rib).—Aug. 20, 1903, I was called to see bay stallion, five years old. On my arrival found animal down and unable to rise and to all appearances seemed to be dead. Close examination revealed feeble respiration, pulse imperceptible. I at once administered $\frac{1}{30}$ of a grain of nitroglycerine hypodermically. In thirty minutes administered one grain of strychnine sulphate hypodermically. In one hour the horse was able to rise. I gave digitalis, 3 ij, aromatic spirits of ammonia, 3 ss, whisky, 3 ij. Stimulants were continued four hours. When animal was able to stand the pulse was very much accelerated (110 per minute), but would frequently miss a beat or two. Later on became very irregular. The jugular vein was very much enlarged and showed venous pulse. The horse has been continually treated since, treatment consisting almost wholly of fluid extract of digitalis, 3 ij doses twice daily. The patient still continues to have spells of collapse two or three times per week, each lasting from thirty to forty minutes, but soon recovers upon the administration of a 3 ij dose of digitalis. At present, patient is very much emaciated and ultimate recovery is very doubtful.

I will now make a short report of the condition of veterinary affairs in Iowa as they are at the present date. We have 221 graduates registered and 544 non-graduates. There is very little of the opposition to the law which was so apparent two or three years ago and violations are becoming more rare as law is more generally recognized and its beneficial effects appreciated. I have nothing but praise for the veterinarians of Iowa for their loyalty to the board and their efficient aid in the law's enforcement; and, with their coöperation we expect in the near future to have our law as greatly respected and as generally obeyed as any upon the statute books of the State. I have noticed, almost with feelings of regret, the passing of the old-time "hoss-doctor" from our midst. By this I do not refer to the average non-graduate of our State, for I have generally found him progressive and fully capable of keeping abreast of the times. What I do refer to is the old-time practitioner; the man who still does things just as his grandfather did before him, who has cast himself in front of the car of progress and who deprecates the fact that the world moves on. He is still to be found,

a remnant of a once numerous type, powerful in his day and once a leading figure in his community. He has fought the introduction of advanced methods: he has taken his stand, and the progressive veterinarian has passed on and left him all alone. But who will begrudge him the remnants of the fame which was once his own? Who would shatter the old ideals upon which his faith is founded? He stands to-day the connecting link between the past and the present in veterinary science. He is the sole survivor of a once numerous race. The following has appealed to me as a truthful description of this type:

THE OLD HOSS-DOCTOR.

His nose was red and his eyes were blue,
His whiskers waved when the wind blew through;
He spit on his hands and he took a chew
And he said; "I'm a hoss-doctor!"

"I've doctored stock fer fifty year,
I've dosed 'em there and I've dosed 'em here:"
And he stuck his thermometer over his ear
As he said; "I'm a hoss-doctor!"

"Now, way back there in '43
When I was a boy, my daddy, he
Took me with him an' he learned it to me;
That's why I'm a hoss-doctor!"

"There's not a man in the county, I guess,
That I ain't done work for, more or less:
I hate to brag, but I must confess
I'm a first-class hoss-doctor!"

"If your hoss won't eat, or a cow is sick,
Jest send for me and I'll get there quick;
If it's four in the mornin' I never kick;
You see, I'm a hoss-doctor!"

And I thought, as the old man walked away;
"You have served your time, you have had your say,
You are living in memories of yesterday,
When you were the hoss-doctor!"

"It is sad to think that you cannot stand
With the first practitioner of the land;
But you did your best with the stock in hand:
Hats off to the hoss-doctor!"—*Harry D. Bruner.*

In the evening a number of reports of cases were given. Dr. Austin brought up the question of parturient paresis. This was discussed by Drs. Simpson, Jacobs, Stewart, Talbot, Hinkley,

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Thomas, and Jensen. The consensus of opinion was that when the Schmidt treatment is used one should aim to allow large quantities of air to enter with the fluid. Some had used the air treatment with very good success.

The meeting then adjourned until 9 A. M. the next morning, when a demonstration in stock judging was given by Prof. H. R. Smith at the Union Stock Yards. This consumed the entire morning.

The meeting convened again in the City Hall at 2 o'clock. The first paper listened to was that of Dr. Bostrum entitled "Pneumonia in Calves."* This paper was very instructive. The Doctor thought that this disease was highly contagious and that it often occurred on premises where diseases, such as abortion in cows and white scours in calves, existed. This paper brought forth quite a discussion, as this is a disease that is causing severe losses in the West.

Dr. S. Avery, Agricultural Chemist, read an interesting paper entitled "Analysis of Some of the Most Prominent Veterinary Proprietary Remedies," which was quite amusing as well as instructive to the members present. He showed what ridiculous formulæ are brought together and sold to the farmers to relieve the ailments of their stock.

Dr. S. Stewart, of Kansas City, Mo., was present and gave the members a very interesting review of the American Veterinary Medical Association meeting at Ottawa. He stated that it was one of the most instructive meetings that the Association had ever held, and from the description he gave many regretted that they did not have the pleasure of attending the same.

After adopting the following resolutions, the Association adjourned:

"WHEREAS, The Mayor and the City Council of Omaha have kindly furnished our Association suitable rooms for meeting purposes; be it

"*Resolved*, That we extend to them our hearty thanks for their kindness.

"WHEREAS, Dr. H. L. Ramacciotti arranged at his infirmary an appropriate clinic, incurring both expense and inconvenience, for the benefit of the Association members; therefore, be it

"*Resolved*, That we extend to him our hearty thanks for his coöperation and kindness.

* Will be published in an early number of the REVIEW.

"WHEREAS, Prof. H. R. Smith, of the University of Nebraska, conducted a highly interesting and instructive demonstration of the principles of stock judging; be it

"*Resolved*, That we express to him our hearty appreciation for his efforts.

"WHEREAS, Prof. S. Avery, of the University of Nebraska, presented a valuable paper embodying much painstaking work, dealing with the chemical analysis of certain patent medicines sold upon the market; therefore, be it

"*Resolved*, That we extend to him our hearty thanks for his efforts.

"(Signed) J. H. McNEIL, Chairman; V. SCHAEFER, RICHARD EBBITT, D. H. MILLER."

The following members were present: C. J. Hinkley, Odebolt, Iowa; C. Olson, Harlan, Iowa; J. G. Parslow, Shenandoah, Iowa; W. A. Thomas, Lincoln, Neb.; Richard Ebbitt, Grand Island, Neb.; M. Jacobs, Ames, Iowa; W. H. Austin, Newton, Iowa; C. E. Baxter, Oakland, Iowa; H. Jensen, Weeping Water, Neb.; Hal C. Simpson, Dennison, Iowa; H. E. Talbot, Des Moines, Iowa; J. W. Haxby, Villisca, Iowa; S. T. Miller, Shelby, Iowa; V. Schaefer, Tekamah, Neb.; D. H. Miller, Harlan, Iowa; C. E. Stewart, Chariton, Iowa; A. Bostrum, Minden, Neb.; H. L. Ramacciotti, Omaha, Neb.; A. T. Peters, Lincoln, Neb.; J. H. Gain, Lincoln, Neb.; W. J. Cass, Lincoln, Neb.; C. F. Leslie, Wahoo, Neb.; S. E. Cosford, South Omaha, Neb.; Carl W. Gay, Ames, Iowa; S. Stewart, Kansas City, Mo. (visitor). A. T. PETERS, *Secretary*.

VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular monthly meeting was called to order March 2, at 8.30 P.M., President Dr. J. E. Ryder in the chair. Members present: Drs. C. E. Clayton, Roscoe R. Bell, J. E. Ryder, W. D. Critcherson, R. Dickson, T. A. Kellar, G. F. Bowers, W. Lellmann, T. G. Sherwood, R. W. McCully, F. C. Grenside, Wm. Sheppard, R. W. Ellis, J. L. Robertson, A. O'Shea and D. J. Mangan. Visitors: Dr. F. J. Loomis, New York City, and students of the New York-American Veterinary College.

The minutes of the previous meeting were adopted as read. No reports of committees were made. The essayists of the evening were absent.

Dr. Wilfred Lellmann presented a specimen of a horse's

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heart, which showed a pronounced dilatation of the ventricles, especially the right ventricle. In this case Dr. Lellmann said Dr. Sherwood called him in consultation. The animal had suffered with hæmorrhages from the nostrils. On examination they found nothing morbid in the nasal cavities. It was decided to exercise the animal, which was done at once. After traveling a distance the animal commenced to bleed from the nostrils, and the pulse was very weak and intermittent. On driving the horse further it got an attack of vertigo, fell and died. A post-mortem was held at once. The heart showed a very decided dilatation of the right ventricle, and atrophy of its wall; there was a fatty degeneration of the myocardium; in fact, the heart muscle had the appearance of boiled beef. Dr. Lellmann said this was a true case of heart disease in the horse. He also stated that the belief that a hæmorrhage from the lungs is frothy is not correct; blood may come from the lungs and not appear frothy, only when the animal would cough. In the lungs there was a hæmorrhagic oedema present. Owing to the dilatation of the right ventricle the pulmonary circulation was very poor, the rupturing of the minute capillaries causing the hæmorrhage. No doubt, Dr. Lellmann said, the same morbid condition existed in the capillary walls as was found in that of the heart. The hæmorrhage from the nostrils in all the attacks was never very profuse.

The members examined the specimen, and various questions were put to the Doctor, which he answered.

Drs. Sheppard, Critcherson, Clayton, Kellar, Bell, Lellmann, Bowers and Grenside took part in the discussion which followed, during which several of them recited the various experiences which they met with in bleeders.

Dr. Bell made a few remarks regarding azoturia, in which he stated that he had under his observation about eighty young contractor's horses which have worked spasmodically during the cold season, and not one case of azoturia developed. This he attributed to the fact that the animals were fed on a molasses diet throughout. These animals had worked and were run down during the summer. In the winter work got slack and the animals increased rapidly in flesh and would work only in spells.

Dr. McCully stated that he had 250 horses under his observation and that for the past two years they have been fed on the molasses diet, and only one case of azoturia developed during that time; where formerly it was extremely common every

year. He also mentioned that the percentage of colics and digestive troubles were greatly reduced.

Dr. Ellis said that he had a case of azoturia in a horse which received about three quarts of molasses per day.

Dr. Bell mentioned that he had a case of heaves in a trotting mare which showed such remarkable improvement in breathing and condition on the molasses diet, that she was able to win a race in 2.14.

Other members discussed this subject of molasses diet, and it seemed to be the unanimous opinion that the greatest obstacle to its use was the trouble of mixing the feed.

Dr. Grenside asked how is it that boiled feed and bran-mash had a laxative effect on the bowels. Several members answered this question, in which it was stated that bran consisted of cellulose, of which 60 to 70 per cent. was indigestible; therefore producing an irritation of the bowels, increasing the intestinal juices and peristalsis.

This question was discussed to considerable length, which was very interesting.

The meeting was then adjourned.

D. J. MANGAN, *Secretary*.

WISCONSIN SOCIETY OF VETERINARY GRADUATES.

The fourteenth annual meeting was held at the Capitol Building, Feb. 4, at 3 P. M., and was called to order by the President, the following members responding to roll-call: H. Arpke, S. Beattie, J. W. Beckwith, B. L. Clark, C. M. Crane, C. E. Evens, H. F. Eckert, A. H. Hartwig, R. S. Heer, R. Kuoni, E. L. Morgenroth, E. H. Newton, J. F. Roub, E. D. Roberts, T. A. Schneekloth, Chas. Schmitt, S. S. Snyder, L. C. Tasche, and A. S. Alexander.

The minutes of the last meeting were read by the Secretary and adopted. The Secretary's and Treasurer's reports were read and adopted.

Five visitors applied for membership, viz.: Drs. L. A. Forge, Burlington, Wis.; B. J. Zimprich, Sun Prairie, Wis.; D. B. Clark, Janesville, Wis.; E. G. Schultz, Mayville, Wis.; and A. S. Alexander, Madison, Wis., all graduates of the Chicago Veterinary College. The Censors reported favorable and they were declared elected.

Dr. Alexander briefly reported on an address to the Farmers' Institute relative to the licensing of stallions in Wisconsin, which met the approval of the Society.

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The Code of Ethics came under discussion by several members, and as the committee appointed to revise the code were not all present, the discussion was closed on motion. Motion was made and carried that the committee be discharged.

Delinquent members and the ledger accounts came under discussion. Dr. Snyder moved that all members be notified that their dues for 1904 are due and until paid members will not be in good standing. The motion was carried.

It was moved and seconded that the Secretary be empowered to purchase new books and transfer all accounts now in good standing. (See section 12.) Carried.

A communication from Dr. W. H. Welsh, Secretary of Illinois Veterinary Association, was read, inviting our Society to attend their meetings.

On motion, the literary programme was carried over to the evening session, and the Society proceeded to the election of officers, which resulted as follows:

President—Dr. R. S. Heer.

Vice-President—Dr. Charles Schmitt.

Secretary—Dr. S. Beattie.

Treasurer—Dr. Charles Crane.

Dr. Heer briefly addressed the meeting, thanking the Society for the action they had taken in conferring upon him the honorable position of President, and after re-appointing the Board of Censors it was moved, seconded and carried that the meeting adjourn until 7.30 P. M.

Evening Session.—The Society met at 8.00 P. M. and continued with the unfinished business.

Our semi-annual meeting came under lively discussion, and it was carried that our semi-annual meeting be held at Madison during the time of the Monona Lake Assembly.

Dr. A. H. Arpke read a paper on "Wounds of the Foot," which was discussed by Drs. Roub, Schmitt, Eckert, Roberts, Tasche, Alexander and Hartwig.

Dr. J. W. Beckwith read a paper on "Proctitis and Its Close Resemblance to External Ulcerative Ano-Vulvitis,"* which was discussed by Drs. Alexander, Heer and Schmitt.

Dr. Chas. Schmitt read a paper on the benefits received from the product of the short course in agriculture given at Madison. Discussed by Drs. Alexander, Hartwig and Roberts.

Dr. J. F. Roub reported three very interesting cases, viz:

* Will be published in an early number of the REVIEW.

"An Anomalous Pig"; "Dentigerous Cyst";* and "A Painless Case of Impaction in a Colt Eight Months Old."†

Dr. E. D. Roberts reported on a herd of horses from the West afflicted with locomotor ataxia.

Dr. S. S. Snyder reported on the "Treatment of Parturient Paresis by Oxygen,"† which was discussed by Drs. Alexander, Schmitt, Eckert, Roberts and Roub.

Dr. A. H. Hartwig reported on the "Treatment of Parturient Paresis by Potassium Iodide," which was discussed by Drs. Eckert, Roub, Snyder and Crane.

It was moved, seconded, and carried that the meeting adjourn to meet at Madison, subject to the call of the President and Secretary.

CLINICS.

February 5th, 8.30 A. M., the Society met at Beattie's Boarding Stable, where Dr. R. S. Heer performed cunean tenotomy for relief of spavin lameness.

Dr. J. F. Roub operated for scrotal hernia in a two-year-old colt in a most creditable manner.

Drs. A. H. Arpke and L. C. Tasche performed metacarpal neurectomy for relief of permanent lameness caused by osteoncus of the pyramidal process in a ten-year-old draught horse.

S. BEATTIE, *Secretary*.

CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

The regular quarterly meeting was held in Room 1000, Palace Hotel, San Francisco, on March 9th, and was called to order by President Chas. H. Blemer, the following gentlemen answering to the call of the roll: Drs. Archibald, Blemer, Browning, Corcoran, Creely, Donnelly, Egan, Fox, Fisher, Glasson, Hoggarty, Jackson, Kraker, Lawrence, McCarty, McMurray, Sorenson, Somers, Spencer, Steers, Williams, Ward and Welch.

The Secretary read the minutes of the last meeting, which were duly approved.

The Board of Examiners reported favorably on the applications of the following gentlemen for membership: Drs. Alexander, Eddy, Danielson, Button and Dawdy, and they were unanimously elected.

* Published elsewhere in this number.

† Will be published in an early number of the REVIEW.

It was moved, seconded and carried that the thanks of this Association be tendered to the Golden Gate Park Driving Club and to Dr. Ira Barker Dalziel, for their courtesy in furnishing a room for the meetings of this Association.

Dr. Archibald then brought up the subject of ptomaine poisoning in dogs, which the Doctor claimed might be often attributed to strychnine poisoning. A lengthy discussion followed, which was participated in by most of those present.

Dr. Ward then made some remarks on a disease that has manifested itself in Monterey and several other counties, afflicting dairy cattle, and is called by the dairymen "mad itch". After a somewhat extensive discussion, nothing definite being determined, it was resolved to take up the subject at some future meeting, Dr. Ward and several other members promising to gather data relating to the matter.

Dr. McCollum being absent, his paper was then read by Dr. Fox, the subject chosen by the essayist being "Swine Plague and Hog Cholera". Some novel suggestions were advanced as to treatment of these diseases, the efficacy of which was vouched for by State Veterinarian Blemer and Dr. D. F. Fox. A very interesting discussion followed, in which those present seemed to take great interest.

Dr. Sorenson was then called upon, and responded with an exceedingly interesting and well-written paper on "Surra". As there were several veterinarians present who, with the essayist, had spent many months in the Philippine Islands, the pathology of the disease was very intelligently discussed, and much information of value gleaned.

Dr. Creely then followed with a good wholesome talk upon lameness, and, speaking from notes, the Doctor reviewed the subject as far as time would permit in such an earnest and convincing manner that his hearers felt that they were back to their college days, and listened with profound attention. The following gentlemen were appointed essayists for the next meeting: Drs. Ward, Donnelly, Boomer, Eddy, Falkner, and Corcoran, the President not failing to notify them the rule of five dollars fine for failure would be strictly enforced.

The meeting than adjourned to meet in the banquet hall, where a sumptuous repast awaited them, and mirth, reason and goodfellowship prevailed until the early hours of the morning called them to rest for the resumption of life's stern battle. During the festivities a photograph was taken by flashlight.

P. H. BROWNING, *Secretary*.

PASSAIC COUNTY VETERINARY MEDICAL ASSOCIATION.

The regular monthly meeting was held at 169 Paterson St., Paterson, N. J., April 5, with President Dr. Wm. Herbert Lowe in the chair. The following members were present :

Drs. T. J. Cooper, John H. Degraw, Wm. J. Fredericks, Wm. Herbert Lowe, J. Payne Lowe, W. H. Lowe, Jr., and Augustus Berdan.

The minutes of last meeting were read, and approved as read. The Secretary reported that he had been unable to get any communication from our Treasurer.

Dr. Augustus Berdan was proposed for membership by President Lowe, and was unanimously elected a member of the Association.

Dr. Cooper brought a specimen which was found in the mountains of New Jersey, and exhibited a skull of a prehistoric animal, which was examined by all members present with much interest. This specimen will be sent to the American Museum of Natural History to find out what the proper name is. Dr. Cooper was tendered a vote of thanks from the members present.

Dr. W. H. Lowe, Jr., reported a dog show held in the city of Paterson in March for the benefit of the New Jersey Fish and Game Protective Association. This money will be used for stocking streams and putting game in the mountains. This show was a great success and was very largely attended. Dr. Cooper said this show was a very creditable show for Passaic County, and should interest the people in the breeding of better dogs.

Dr. W. H. Lowe, Jr., made a motion that the Association be authorized to get the necessary evidence in the case now pending, and if the evidence warrants action the Association will prosecute the case at once.

Dr. Augustus Berdan was elected to be essayist at our next regular meeting, which will be held on Tuesday evening, May 3, 1904.

As there was no other regular business to transact, adjournment occurred.

WM. J. FREDERICKS, *Secretary*.

MAINE VETERINARY MEDICAL ASSOCIATION.

The regular quarterly meeting was held at Waterville, April 13, beginning with a clinic at 3 P. M. at Dr. Joly's office. Members present were Drs. L. Sand, A. W. Cleaver, Bar Harbor;

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F. E. Freeman, Rockland ; R. E. Freeman, Dexter ; A. Joly, Waterville ; and I. L. Salley, Skowhegan.

First clinic, line firing for enlarged tendon, by F. E. Freeman ; No. 2, castration, by I. L. Salley ; No. 3, neurectomy for navicular arthritis, left leg, by Dr. L. S. Cleaver ; right, by Dr. A. W. Cleaver ; No. 4, the removal of large melanosis from the eye-socket.

These operations were all performed under an anæsthetic. The neatness and dispatch with which they were done, showed the operators to be experts, especially in the two cases of neurectomy. The clinic was a success in every way, although Dr. Joly was on the sick list.

At 6.30 a banquet was served at the Elmwood, followed at 7.30 by the business meeting.

Dr. L. S. Cleaver was elected President, *pro tem*, because of the absence of both President and Vice-President. Dr. I. L. Salley was elected Secretary *pro tem*. The regular business of the meeting was attended to. Several cases were reported and discussed. A veterinary bill for the next legislature was discussed.

Voted to adjourn to meet in Bar Harbor in July.

I. L. SALLEY, *Secretary, pro tem.*

NEBRASKA VETERINARY MEDICAL ASSOCIATION.

A very interesting clinic was held at the University Farm on Thursday, January 21. Those taking part in the operations were Dr. J. H. McNeil, of Ames, Iowa ; Dr. V. Schaefer, of Tekamah, Neb. ; and Dr. J. H. Gain, of Lincoln, Neb. Dr. McNeil performed the Peters operation for spavin and Dr. Schaefer performed the operation of the removal of the arytenoid cartilage. A number of interesting cases were presented for diagnosis. The clinic was pronounced a decided success.

After lunch the members visited the Lincoln Importing Company to inspect their latest importation of coach and draught stallions. The meeting then convened at 2 o'clock in the Experiment Station building. In the absence of the chairman, Dr. H. Jensen, who was unavoidably detained by the death of his brother-in-law, Dr. J. H. Gain was elected temporary chairman.

The first paper was presented by Dr. G. R. Young,* of Omaha, Neb. He described some very interesting cases that he

* Will be published in an early number of the REVIEW.

had met with in his practice. This brought out a free discussion by Drs. Gain, Schaefer, and Thomas.

The next paper called for was that of Dr. Schaefer's on "Malignant Edema."* This paper was discussed freely, for the Doctor stated that large quantities of potassium iodide could be used. In the discussion the fact was brought out that these cases of malignant edema are not at all uncommon and if such good results can be obtained by using potassium iodide it is certainly of importance that the practitioners be informed.

The next paper presented was that of Dr. McNeil's. The Doctor gave a talk on exostosis. His talk was the most instructive on this subject that the Nebraska veterinarians had ever had the pleasure of listening to. The Secretary regrets very much that no stenographer was present to take down this valuable address. However, we hope that in the near future Dr. McNeil will be able to have his talk published in this journal so that other veterinarians may be profited by the same.

This finished the reading of the papers. The chairman was then instructed to appoint a committee on Legislation to report at the next meeting. The Association then adjourned to meet in Omaha during the Ak-Sar-Ben week.

The following members were present: H. L. Ramacciotti, Omaha; G. R. Young, Omaha; Geo. P. Tucker, Lincoln; J. H. Gain, Lincoln; V. Schaefer, Tekamah; G. Robertson, Beatrice; J. S. Anderson, Seward; W. A. Thomas, Lincoln; J. D. Sprague, David City; C. A. McKim, Norfolk; W. S. Cass, Lincoln; A. T. Peters, Lincoln. The following visitors were present: Drs. E. E. Brown, Kansas City, Mo.; J. H. McNeil, Ames, Iowa; H. P. Miller, Sunbury, Ohio.

A. T. PETERS, *Secretary*.

DR. WM. DOUGHERTY, of Baltimore, Md., after thirty years of active practice, has retired, and has been succeeded by Drs. John F. DeVine, of Goshen, N. Y., and W. H. Martenet, of Baltimore. We sincerely trust that the good doctor, who is one of the most loyal of veterinarians as well as a prince of good fellows, may long live to enjoy his well-earned rest, and also (now that he will have abundance of opportunity,) that he will tell REVIEW readers just what a "Crab" is.

WELLS BAKER, a well-known New York horseman and self-made veterinary surgeon, dropped dead in the stable where he boarded his horse, just after returning from a drive, on April 22. Heart disease and nephritis was assigned as the cause.

NEWS AND ITEMS.

EDWARD L. LEWIS, M. D. C., V. S., has removed from Temple, Texas, to Austin, Texas.

Dr. HORACE RICE, Little Rock, Arkansas, spent a few days among friends in Kansas City recently.

THE eleven-year-old son of Henry McDonough, Brooklyn, N. Y., has been cured of a severe form of tetanus by intra-spinal injections of anti-tetanine.

PROF. CURTISS is in favor of a department at the Agricultural College, Ames, Iowa, to give instruction in slaughtering, canning and curing meat.

EUGENE BURGET, D. V. S., Mayor of Wadsworth, Ohio, was elected a director of the Medina County Agricultural Society in February last.

DR. W. H. LYTLE, of Jefferson, Iowa, has received an appointment as assistant inspector, B. A. I., and assigned for duty at Ottumwa, Ia.

DR. GEO. W. BLANCHE, I. S. C., '02, of Belle Plaine, Iowa, was recently appointed a member of the Iowa State Board of Veterinary Examiners.

"OUR new veterinary law is perfection; we have convicted every person arrested."—(*E. J. Creely, D. V. S., San Francisco, Cal.*)

DR. ROSCOE R. BELL of the REVIEW acted as veterinarian to the Horse Show in Brooklyn the latter part of April. It was a success from all points of view.

DR. E. M. NIGHBERT, B. A. I., formerly stationed at Kansas City, has been transferred to Spencer, N. C., on Texas fever and other infectious animal diseases.

C. E. BROWN, D. V. S., D. C. M., has removed from Neillsville, Wis., to Portland, Oregon, where he has purchased property and will fit up an up-to-date infirmary for horses and dogs.

DR. ROBERT DICKSON, of New York City and Seabright, N. J., was married on April 6 to Miss Kalb, also of New York, and has established his home near the historic Rumson Road, Seabright, on a beautiful estate which he has recently purchased and which he will utilize in a professional capacity. Dr. J. Elmer Ryder, of New York, was best man.

"SORE LIPS IN LAMBS."—Prof. N. S. Mayo, State Veterinarian of Kansas, who described an extensive outbreak of this disease in the March REVIEW, and asked his professional brethren for information concerning the same, writes under date of April

7: "Through the kindness of Dr. Mohler, I find that the disease is probably facial dermatitis. It is also known as 'impetigo labialis' in Canada, 'contagious pustular dermatitis' and 'crusta labialis' in England and Scotland, and 'maulgrind' or 'lämergrind' in Germany." . . . We have also received from Dr. R. N. Mead, of St. Paul, Minn., the notes collected by him and Frederick Priest in 1895 for a thesis and submitted by them to the Dean of the Veterinary College of the Ohio State University. Dr. Mead states that he has diagnosed the disease on two occasions during the past four years. While the crowded condition of our pages will not permit of their publication in this issue, they will appear in an early number.—[EDITOR].

WHAT REVIEW SUBSCRIBERS SAY.

"THE REVIEW is the salt of earth to me."—(*H. Jensen, M. D. C., Weeping Water, Neb.*)

I CONGRATULATE YOU upon the success the REVIEW has met with; it should be upon the table of every live veterinarian."—(*J. H. McNeil, V. M. D., Dean Vet. Dep't Iowa Agr'l College, Ames, Iowa.*)

"I HAVE been a reader of the REVIEW for several years, and I consider it a valuable periodical."—(*E. M. Nighbert, V. S., Spencer, N. C.*)

"THE practitioner without the REVIEW, or its equal, is the practitioner without an education."—(*E. I. SMITH, D. V. M., Franklinville, N. Y.*)

"YOUR noble efforts are appreciated by the veterinarian the world over. Send it along. We will not keep house without it."—(*W. H. Deadman & Sons, V. S., Ishpeming, Mich.*)

"The REVIEW is one of the pleasant things we have to look forward to, and I should be greatly disappointed if it should fail to arrive."—(*C. H. Jewell, Vet. 13th Cavalry, Manila, P. I.*)

"I CALL THE REVIEW my teacher since leaving college. To keep up with the times the REVIEW is a necessity for every live veterinarian."—(*Frederick R. Whipple, M. D. V., Kewanee, Ill.*)

"As a hearty eater testifies to the ability of the chef, so the renewal subscriber bears testimony of appreciative gratitude to the publishers. Volume XXVII towered, like Saul of Tarsus, over its predecessors, and the editors may justly feel proud of their success."—(*Peter F. Bahnsen, V. S., Americus, Ga.*)

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VETERINARY MEDICAL ASSOCIATION MEETINGS.

In the accompanying table will be found the dates, places of meeting, and Secretaries' names and addresses of all the Veterinary Medical Associations of the United States and Canada, so far as obtainable by the REVIEW. Secretaries are urgently requested to see that the organizations which they represent are properly included in the list.

Name of Organization.	Date of Next Meeting.	Place of Meeting	Name and Address Secretary.
American V. M. Ass'n.....	Aug. 16-19, '04.	St. Louis, Mo.	J. J. Repp, 5249 Addison St., Phila., Pa.
Vet. Med. Ass'n of N. J.....	July 14, 1904.	Newark.	G. W. Pope, Athenia, N. J.
Connecticut V. M. Ass'n.....	August 2.	Waterbury.	B. K. Dow, Willimantic.
New York S. V. M. Soc'y....	September, 1904	Brooklyn.	W. H. Kelly, Albany, N. Y.
Schuylkill Valley V. M. A....	June 15.	Pottsville, Pa.	W. G. Huyett, Wernersville, Pa.
Passaic Co. V. M. Ass'n.....	Monthly.	Paterson, N. J.	W. G. Fredericks, Delawanna, N. J.
Texas V. M. Ass'n.....	.....	.....	H. D. Paxson, Ft. Worth.
Massachusetts Vet. Ass'n.....	Monthly.	Boston.	F. J. Babbitt, Lynn, Mass.
Maine Vet. Med. Ass'n.....	July, 1904.	Bar Harbor	C. L. Blakely, Augusta.
Central Canada V. Ass'n.....	.....	Ottawa.	A. E. James, Ottawa.
Michigan State V. M. Ass'n....	.....	.....	Judson Black, Richmond.
Alumni Ass'n N. Y.-A. V. C....	April, 1905.	141 W. 54th St.	W. C. Miller, N. Y. City.
Illinois State V. M. Ass'n.....	December.	Chicago.	W. H. Welch, Lexington, Ill.
Wisconsin Soc. Vet. Grad.....	Call of Pres't.	Racine.	S. Beattie, Madison.
Illinois V. M. and Surg. A....	August, 1904.	Decatur.	W. A. Swain, Mt. Pulaski, Ill.
Vet. Ass'n of Manitoba.....	July, 1904.	Winnipeg.	F. Torrance, Winnipeg.
North Carolina V. M. Ass'n....	July, 1904.	Greensboro.	T. B. Carroll, Wilmington.
Ontario Vet. Ass'n.....	December, 1904	Toronto.	C. H. Sweetapple, Toronto.
V. M. Ass'n New York Co....	1st Wednesday of each month.	141 W. 54th St.	D. J. Mangan, N. Y. City.
Ohio State V. M. Ass'n.....	August, 1904.	St. Louis, Mo.	W. H. Gribble, Washington C. H.
Western Penn. V. M. Ass'n....	1st Wednesday of each month.	Pittsburgh.	F. Weitzell, Allegheny.
Missouri Vet. Med. Ass'n.....	Aug. 15, 1904.	St. Louis.	Stanley Smith, Columbia.
Genesee Valley V. M. Ass'n....	.....	.....	J. H. Taylor, Henrietta, N. Y.
Iowa State V. M. Ass'n.....	.....	.....	H. C. Simpson, Denison, Ia.
Minnesota State V. M. Ass'n....	.....	.....	J. G. Annand, Minneapolis.
Pennsylvania State V. M. A....	.....	.....	C. J. Marshall, 2004 Pine St., Phila.
Keystone V. M. Ass'n.....	2d Tuesday of each month.	Philadelphia.	C. J. Marshall, 2004 Pine St., Phila.
Colorado State V. M. Ass'n....	1st Mon. in June	Denver.	M. J. Woodliffe, Denver.
Missouri Valley V. Ass'n.....	June, 1904.	Undecided.	B. F. Kaupp, 3712 Michigan Ave., Kansas City
Rhode Island V. M. Ass'n....	June, 1904.	Providence.	T. E. Robinson, Westerly, R. I.
North Dakota V. M. Ass'n....	2d Tues. Jan.	Fargo.	E. J. Davidson, Grand Forks
California State V. M. Ass'n....	Mch. Je. Sep, Dec	San Francisco	P. H. Browning, San Jose.
Southern Auxiliary of California State V. M. Ass'n....	Jan. Apl. Jy. Oct.	Los Angeles.	H. D. Fenimore, Los Angeles
South Dakota V. M. A.....	.....	.....	E. L. Moore, Brookings.
Nebraska V. M. Ass'n.....	.....	.....	A. T. Peters, Lincoln.
Kansas State V. M. Ass'n....	January, 1905.	Topeka.	Hugh S. Maxwell, Salina.
Alumni Association A. V. Col..	April each yr.	New York.	F. R. Hanson, N. Y. City.

PUBLISHERS' DEPARTMENT.

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In the April number we called our subscribers' attention to the fact that agents receiving subscriptions for the REVIEW at less than publishers' price, \$3.00, would not be recognized by the REVIEW publishers, and that their orders would not be filled, nor any subsequent ones from the same agent who had thus violated one of the REVIEW's rules, after having been advised not to do so. We cautioned our subscribers in the notice referred to in the April number, with the object of protecting them against the inconveniences that would thus arise, of having to get their money back from the agents, and the delays that would result in receiving their numbers while the matter was being adjusted; and we call attention to the matter again in this issue, because some few have been subjected to just the inconveniences alluded to, and are now waiting for numbers they should have received the first week in April; and we wish further to explain that it is not sufficient to forward the balance to the agent that first took their subscription at the reduced rate, but they must request the said agent to return their money to them, and then SEND THEIR SUBSCRIPTIONS TO THE REVIEW PUBLISHERS DIRECT.

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Dr. Hayes, 416 East 14th Street, New York.